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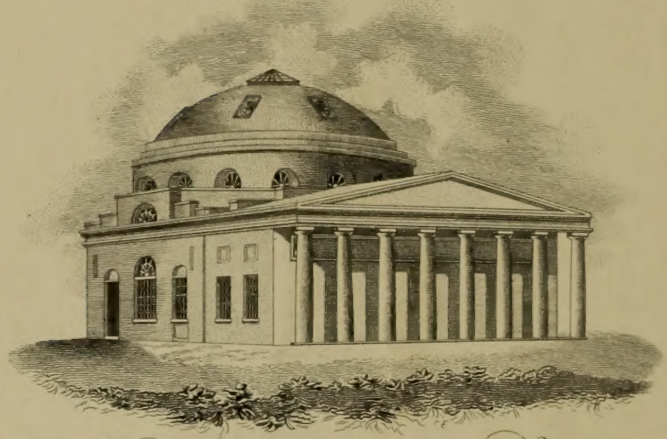

University of Maryland

University of Maryland Theses

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An Inaugural Dissertation

On Phthisis,

Submitted to the examination

Of The Provost, Regents, and Faculty of Physic,

Of the

University of Maryland,

For the Degree

Of Doctor of Medicine,

By Edward W. Johns

Of Maryland.

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To

S. P. Smith M.D. and T. A. Healey M.D.,

My Honoured Preceptors,

And to

William Power M.D.,

Our Respected Professor

Of The Theory and Practice of Medecine,

I beg leave, Respectfully,

To Dedicate this

Thesis.

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Phthisis.

In accordance with the rule of this Institution, I have the honour to submit to the Faculty a Thesis: and for its subject matter, I have selected the consid-=ration of Phthisis. I. Definition of the term. The term – Phthisis – has been differently used since the disease, or diseases, bearing the character of which this word (from φθίω corrumpo) is descriptive, were known. By the ancients, it was applied to every disease of a wasting or consumptive character: – as, indeed, must necessarily have been the case, when the pathology of the disease was not cultivated, or even scarcely known, and none, but crude, indistinct ideas were entertained of the general parallellism of the diseases comprehended under this term – Phthisis. The unity of the disease was not understood; its unvarying characteristic pathological alterations, – not confined to any one particular locality, though infes-=ting some parts of the body more than others, – had not been brought to light; its dependence upon a particular lesion of function – general in its effects upon the system in producing a peculiar cachexia, – was not recognised; and Phthisis, besides having many local habitations, had also, for each of them, a name.

Not only was this term applied to those dis=
=eases in which there was cachectic wasting of the
system originating from a certain organ; but, using
the word in its very strictest sense, it served to char=
=acterise even the wasting commonly attending ordinary
diseases: and many confusing varieties — as for instance
P. Rheumatica, P. Syphilitica &c — were described. But,
as science advanced; as more enlarged views were en=
=tertained upon disease in general; when knowledge
was sought after in a better conducted manner, and
with a more discriminating attention; when the pro=
=fession, throwing off the bondage of the schools, laid a=
=side useless wranglings based on theories, and set them=
=selves earnestly and sincerely to the elucidation of
disease with facts for their guides, — when the scalpel
was appealed to, and, as a keen weapon of truth, laid
open the troubled medical intellect; Pathology sprang
forth, full armed with the severely discerning pan=
=oply of Wisdom, and, like Wisdom's emblem, pierced
through the darkness which oppressed the vision of the
profession who could scarce perceive even slight glim=
=merings of truth, so blinded were they by the intense

noonday glare of false theory.

From the time Pathology began to be much cultivated, diseases came to be better understood in their different bearings. Many errors, by degrees, were corrected: and there was laid to the root of false speculations, confused nosology, and lumbersome nomenclature which encumbered all accounts of disease.

From this increasing spirit of investigation, and improved direction of its efforts, no disease derived more benefit than Phthisis. It came to be regarded, not merely as an uncertain disease, being sometimes here and sometimes there - differing in its nature and causes and named according to the locality it might occupy or the varying characteristics it might exhibit. The term was restricted to a wasting disease, of which the development of tubercular matter was the chief feature; being a part of the disease as well as a result, and dependent upon a constitutional lesion, which, of necessity, interfering with the functions of existence and organism, must cause them to fade before it, thus, inducing a true consumptive disease.

As the development of tubercular matter was found to occupy the lungs more particularly than other portions of the body; and the more interesting phenomena connected with the disease were observed also there; the term Phthisis Pulmonalis was extensively adopted, and the dis= =ease described under this title. This term (P. Pulmonalis) however, is objectionable as it still savours too much of local character, and would seem to imply, that, in the lungs, were the origin, seat, and causes of Phthisis, and thus leave out of view the constitu= =tional origin of tubercles,— their dependence upon a constitutional lesion. This is an important objection to the term P. Pulmonalis as it would appear to coun= =tenance the doctrine of irritation as the cause of tuber= =cular diseases. I will therefore describe consumption under the title Phthisis, as the subject will there be freed from the bias of a medical surname.

Phthisis, though styled one of the opprobria of medical science, as far as success in treatment has tended to lessen its ravages, is, nevertheless, possessed of great interest.

It is a disease dependent upon a lesion of nutrition, whereby a state of the system is induced, which, from the development of tubercular matter, is denominated tuberculous cachexia. This diathesis seems to be closely connected with another — the scrofulous: for individuals who belong to the scrofulous diathesis are those who seem particularly obnoxious to Phthisis. The seat of the disease, though not of its proximate cause, may be many of the tissues of the body; — on the mucous and serous surfaces; in the lymphatics glands; the biliary apparatus; the intestinal canal; sexual organs; or — organs of circulation, brain and its membranes.

But the organs of respiration are those most occupied by tubercular matter; and it is in them that the evolutions of Phthisis are most marked, and its ravages most fatal. As an author of high excellence has remarked, "the lung disease would be sufficient at length to destroy life."

Phthisis often comes on insidiously, and is extremely variable as to its duration. It may be acute or chronic — it may run through its stages in a month, or some cases may be prolonged through twenty years.

The most prominent symptoms of Phthisis are these— viz— Cough, which is sometimes though rarely absent; Expectoration of characteristic sputa; Haemoptysis; Dyspnea, though this is not always well marked; Pain; Fever; Emaciation; Diarhea; Thirst, Hectic Fever and night sweats. These symptoms together with others less prominent, will be more particularly noticed when considering the Diagnosis and Prognosis of the dis= =ease

I have endeavoured to arrange the consideration of Phthisis, under as few heads, and, in as simple a man= =ner as possible, for the proper treatment of the subject.

Before proceeding with the Pathology, Description, Causes, Diagnosis, Prognosis and treatment of Phthisis, it would be proper and advantageous to enter into an examination, within certain limits, of,

II The Scrofulous Diathesis & its relation to Phthisis. This is a subject about which many confused ideas seem to be entertained. The nature of Scrofula itself, appears to be imperfectly understood though its characteristic features and land-marks (so to speak) have been well observed and described with a considerable degree of accuracy.

The signs of the Scrofulous diathesis are well under-
-stood;- its effects and results cover many a page; the
individuals in whom this diathesis is most commonly ob-
-served are particularly described and nothing of out-
ward evidence appears wanting. Still, as to the true
nature of this wide-spread source of human suffering,
inaccuracy, doubt, and contention yet remain. The
very name of this diathesis is subjected, if not to absolute
debate, yet to an improper degree of indefinite meaning.
Scrofula, according to one author means one thing; —
according to another, Struma means the same thing, yet
not exactly, — and the opinion of the third is, that
Scrofula and Struma are convertible terms. Now,
though there is this indecision about the name and
exact nature of the diathesis, yet all writers give
very similar descriptions concerning its signs and results,
and of their ideas of its nature. All agree that this
scrofous diathesis is a vice — a peculiar vice of the
system, which occurs more frequently in some persons
than in others, is transmitted from parent to child
by hereditary predisposition, or may be induced
in persons previously free from its taint, by certain habits of life.

As to the pathology of this scrofulous vice, there has been some difference of opinion. By some it is said, that inflammation of the lymphatic ganglions and especially those of the neck, is, essentially the disease. This opinion is grounded upon the fact, that, the lymphatic ganglions are very prone to take on scrofulous inflammation. Yet, this this inflammation is not constantly observed in scrofulous lymphatic ganglions, and can hardly be regarded as any thing more than as depending upon a foregoing state of the system, of a peculiar character giving rise to this peculiar inflammation. Besides, this definition of scrofulosis would seem too incomplete; for, certainly, the disease is not confined to the lesion of the lymphatic ganglions. We have clear proof of this in caries of the vertebrae, white swellings and sundry other scrofulous affections. Another reason for rejecting this definition, is, that it contains the idea that scrofulosis exists as a general vice of the system, — general in its extent and in its results —: for, according to it, the disease is limited to a certain portion of the organisation, and, thus,

is removed from the list of diatheses, - which results
theory opposes and facts reject.

Neither does the opinion that scrofulosis is de-
pendent upon depravation of the blood appear
tenable: for the general, constitutional disorder of the system
must be implied as antecedent, and not consequent
to organic or functional changes, which are as
general and characteristic of their origin, as is the
lesion, upon which they depend, in its results. Indeed,
from the history of this diathesis, and according
to the facts brought to bear upon the subject; Scrof-
-ulosis may be placed among the Cachexiæ,
and considered as resulting from a lesion of
the nutritive process.

It would exceed the limits proper for this oc-
-casion to take more than a cursory view of the
Scrofous Diathesis. We will, therefore, examine
it no further than will be advantageous to the
whole subject: - and to this end, proceed with
some of it most prominent characteristics.

The scrofulous diathesis occurs more frequently
in some persons than in others, and in these certain
peculiar

peculiar marks evidence the existence of Scrofula.

Such persons are generally those who possess light hair and eyes — though this is denied by some whose experience is to the contrary —; fair complexion, often of a pearly whiteness mixed with a rosy hue of the cheeks; long, silken eyelashes, and eyes with large, sluggish, and watery pupils. There is, very frequently, puffiness of the eyelids, which latter are very subject, in such persons, to sluggish inflammation which may also extend to the conjunctiva.

This inflammation is, generally, of an indolent character, and very often unattended by increased redness, though it may give rise to great intolerance of light. In persons belonging to this diathesis, there is often every indication of florid health. They seem robust; their bodies appear well developed and fleshy; and their countenances exhibit the, apparently, rosy hue of health. Yet, upon exposure to fatigue, the soft parts, which are, in reality, flabby, readily waste away, and great weakness ensues upon long continued exertion. The brilliant hue of the cheeks, which,

under ordinary circumstances, is tolerably well fixed, is easily converted into a bluish, congested colour, upon exposure to cold. The skin of scrofulous persons is soft, fair, and thin, and easily irritated. Slight causes, which, in others, would be inert, such as the scratch of a pin, or the application of even mildly acrid substances are often sufficient to produce severe irritation. When such persons wound themselves, the wound is difficult to heal, even though it may have been inflicted by an instrument no larger than a lancet-blade. Scrofulous children generally exhibit turned bellies, and have their lower extremities very much shrunken. They are, also, commonly affected with chronic lippitudo or blear-eyes. Their upper lips are turned; and they are noticeable for enlargement of their joints, especially of the knees, besides which they are frequently rickety. Such children are so easily acted upon by surrounding agents, that they are readily, thrown into a deranged state by them; and the most trifling circumstance is frequently sufficient to induce a high state of febrile excitement. It is, also, in such children that the

the consequences of measles, scarlet fever, smallpox &c are are particularly fatal;— their diathesis being further provoked by these diseases as the exciting causes.

The fact that scrofulosis is propagated by haereditary transmission is well known. There is no one of its features better attested: and so strong is the tendency in the offspring to this affection of the parents, that, not only is the diathesis transmitted, but, fre=quently also, the actual disease dependant upon it. Instances of this are not wanting; for, upon more than one occasion, the lungs of the foetus have been found stuffed with tubercles. Even when parents exhibit nothing further than the mere signs of this diathesis, the children may fall victims to scrofulosis in its worst effects. Their bodies may be wasted by mesenteric disease; white swellings may infest their joints; indolent ulcers may eat into their flesh, and their lungs become the seat (though this is rarer than after puberty)— of the most striking development of the disease, and be perfectly stuffed with tubercles. There is, however, a peculiarity about the haereditary nature of scrofulosis, which appears

remarkable; - and it is this: that, although, in some cases, the haereditary nature of Scrofula is so powerful as not only to pass from parent to child, but to be also accompanied by actual disease; yet, nevertheless, sometimes, one generation seems, entirely, to escape the taint, while the third will give strongly marked evidence of the presense of Struma.

Besides the presence of Scrofula from haereditary transmission, it may be induced, in persons constitutionally free from strumous taint, by depressing or debelitating occasions, which will be more particularly treated, when speaking of the Causes of Phthisis.

There is one important, - the most important -, product of scrofula which we have neglected to notice, - and that is tubercle. Nor, will there, now, be other, than passing attention, devoted to it, as a more extended examination of this important deposite will be necessary when we come to speak of the Pathology of Phthisis. It will be sufficient, at present, to say that tubercle (or tuberculous matter) is an unorganized substance found existing sometimes

as little milliary bodies (these in the lungs chiefly); then, in a state called crude tubercle; when it resembles new, tough cheese; and then again they (tubercles) become very soft, and, when there are masses of them, together these "break down" and form cavities. The size of tubercles varies from a millet seed to a hazlenut, and the size of the cavities which they form, ranges from that of a pigeon-egg to an apple. This deposit of tuberculan matter — the best evidence of strumia, and its most important product, — may infest most of the tissues of the body; very few being entirely exempt from occupation by some — even the smallest quantity of this substance

Having examined the Scrofulous Diathesis, as far as will conduce to the end in view: and, having also cursorily noticed tuberculosis in the foregoing introductory remarks; it will be, now, proper to see what is the relation between Scrofula and Phthisis.

Though the opinion, that scrofulosis and tuberculosis are identical, is, comparatively, a newly entertained one, and has been opposed; yet, it would seem to be strongly supported by the history of each, and

* This is true with respect to the general character of the inflam-
= mations lighted up in both (so to speak) cachexiae; which inflammation is, usually
of the kind termed, in General Pathology, Scrofulous.

and by their remarkable, and, as we shall see, increas-
-ing points of resemblance. They are both, constitutional
cachexiae; both acknowledge a similar dependency, and
both are recognised by similar products. From
the short account of tuberculosis in the foregoing
pages, it will be seen to be general in its results; very
few of the organs of the body being exempt from its
effects. The same thing is observed in scrofula, with
respect to the lesions which belong to it. In scrofula,
as in tuberculosis, the affections, (so far, at least, as relates
to tuberculous matter*) of the Stomach, Digestive Ap-
-paratus, Biliary Organs, Liver &c, are as general
and of the same character. Again, both acknowledge
a similar dependency, in their origins, upon a common
cause, which is a lesion of nutrition; and, both, are evi-
-denced by the same products. Though scrofula may
not always result in the development of tubercles, which
is the only point of dissimilarity, and thus only apparent,
yet are tubercles deposited in no other State of the Sys-
-tem than in scrofula. In Phthisis, tubercles constitute
the actual disease, to which the deathesis, (so to speak) has been
provoked. Indeed, so many and so striking are the points

serving to establish the identity between scrofula and tu-
=berculosis, that it has been proposed to banish the term
"scrofula" from medical nomenclature, or, if it be allowed
to remain, to apply it only to express the affection of the
lymphatic ganglions; while "tuberculization" is to be applied to tubercle,
or tuberculous matter in the rest of the system.

Then, from what has said upon the subject; as
tubercles constitute the chief lesion in Phthisis, and
also, never occur in any other manner than as the results
of scrofula; it must follow, that Struma or scrofula,
must in the relation of an antecedent to Phthisis. It (Struma)
must be that preexisting state or vice of the system,
whether it be hereditary or acquired, which, upon the ap-
=plication of the proper exciting causes, or habits of life,
is favourable to the deposition and development of tubercu-
=lous matter; which while the other organs of the body
are, by no means, exempt, has its chief seat, and com-
=mits its greatest ravages in the lungs.

What the nature of this tuberculous matter is; what
its origin; what parts of the body it chiefly affects, will
be more fully spoken of in the next division of the sub-
=ject.

IIIII. Pathological Anatomy of Phthisis.

It was before remarked that no disease derived greater benefit from the direction of the medical mind towards Pathology, than did Phthisis: and the importance of fully elucidating this disease – the desolater of the human race – by reference to its pathology has been fully borne out by the list of illustrious names enrolled upon it and the vast amount of patient, laborious effort expended upon its cultivation. It is to such men as Laennec and Louis, the great High Priests of learning on this subject; Andral, Bayle, Carswell, Stokes and Latham that the profession is indebted for persevering attempts to throw light upon this destructive malady. Even Bronssais, though the source of much error regarding the causes and true nature of the disease, has contributed much to science by his investigations of some of its complications. Laennec, Louis, Bayle, and Carswell are particularly eminent for the stores of knowledge they have contributed relating to Phthisis: but Louis, by his peculiarly exact investigations carried on according the numerical method, appears to have added more information, besides correcting several erroneous

opinions, than, perhaps, any other pathologist. His researches are the more especially to be respected, as they were carried on through a period of seven years, according to the numerical method, which pays no regard to any preexisting doctrine or prejudice whether derived from others, or originating with the individuals who may be engaged in research.

The disease of the respiratory organs constitutes the chief feature of Phthisis, as well as its most important result. According to Watson, who has been before quoted to the same effect; "the lung, alone, would be sufficient at length to destroy life; but its mortal tendency is aided and accelerated, in most instances, by disease of similar character situated in other organs"

In another division of the subject, some notice was taken of tubercle. It will be proper, in this place, to give it that attention due to the most important development in Phthisis.

According to Laennec, as quoted by Louis, and as adopted by him;- "the existence of tubercles in the lungs is the cause, and constitutes the especial

character of Phthisis". That is, as I understand it, the the existence of tubercles in the lungs (chiefly), is the proximate cause as older pathologists would term it; — that is, they are the essence - part and parcel - of the disease: and this appears to be the meaning of the concluding portion of the quotation, where tubercles are said to "constitute the special character of Phthisis" If this be true, - for which there appears strong evidence - it will be readily seen, how totally different this doctrine is from that which affirms that Phthisis is the result of "irritation": for, as tubercles are found in other parts of the body besides the lungs — though their presence in the lungs is necessary to make up the sum-total of the disease; — and, as the existence of tubercles constitutes, specially, the disease; it follows that this deposit cannot be the result of any mere inflammation of the lungs, or, conversely, of the other parts of the body where tubercles may be situated. The morbid exithism of the one part, will not produce this development in the other, — that is directly: for, certainly, inflammations of pulmonary tissues, may act as an indirect cause in connection(?), and in a similar manner with other causes which tend to a depravation of the vital powers.

* Cowans note; page 4. of his translation of "Louison Phthisis".

According to M. Broussais;* "cases of consumption are frequently seen arising from "chronic inflammation and suppuration of the lungs, where no trace of tubercles existed after death". This opinion will be noticed elsewhere; being, here, merely noticed in contrast with the fore-going.

The most proper opinion, concerning tubercle, appears to be; — that it is an inorganised secretion, or, perhaps, as some would say, an excretion of the blood which throws down this deposit, under a pre-existing lesion of nutrition. A minute, imperfectly circumscribed, white cloud based on healthy parenchyma, seems to have been the first appearance noticed of the origin of tubercle, (Sebastian). After a time, according to some pathologists, several of these white clouds enlarge, and, when close together, unite and form "milliary granulations".

These granulations are named after Laennec, who particularly, devoted his attention to them, and who affirms them to be tubercles in their earliest stages: so that "Milliary granulations of Laennec" - sometimes "of Bayle" - is the common expression used with reference to them.

These bodies are homogeneous, minute, shining, roundish,

hard, and semitransparent. They are also termed "grey semitransparent granulations", and are shown, by those researches of Laennec and other eminent pathologists, to form, as it were, the germs of the future tubercles; and, accordingly, they are frequently termed "nascent tubercles".

By some, however, they are considered as merely the effect of chronic inflammation upon pulmonary vesicles, rendering them hard and solid. Their size differs being found ranging from a millet seed to a pea, and, their colour is, at first of a bluish-grey.

Dr Carswell, has given a very plausible explanation of the method of formation of these granules, which may account, according to him, for the subsequent change of their colour. This is his explanation; the membrane, lining the air passages, secretes from the blood not only the matter of tubercle, but its own proper fluid; whence it sometimes happens, that a dull yellowish point of tuberculous matter, becomes enclosed, and set, as it were, in a small pellet of grey, tough, semi-transparent mucous. So that the first appearances presented, are, these grey granulations in which the point of tuberculous matter is enveloped. Then the development

of the tubercular point proceeding, the granulations become yellowish towards their centres losing somewhat of their semitransparent character, and, finally, they ~~appear~~ seem to be entirely changed from their first appearance, (becoming) tuberculous, exhibit a dull yellowish white throughout their whole extent.

What chiefly goes to declare the relationship of granulations to tubercle, is the fact that they affect the same peculiarities, with respect to locality, as do tubercles. They are, almost invariably, found more numerous and larger, at the summit of the lungs than at their base; and at the same time and in the same region, may be found tubercles intermixed with these granulations present in all the varieties mentioned above.

While these granulations are observed chiefly strewed throughout the upper portions of the lung, they also, generally, maintain a certain distance from the pleura. However, this is not invariably the case, as they are sometimes situated so immediately beneath the pleura, as to give the lungs an appearance of roughness,

which may sometimes become apparent to the touch externally during life, especially in the case of children, though the same may be observed in adults.

When describing the general appearances of milliary granulations, as to colour &c; a light reference was made to their progress of development. It is very uncertain as to what time is necessary for the smaller sized granules to become as large as a pea: for, in some cases, the time, during which, the symptoms of Phthisis become evident before its termination, would appear to give room for supposition that in a very short time - as from two to three weeks - their development might take place: while, on the other hand, cases are on record, where, though there was present cough and even haemoptysis, yet, upon a post-mortem, no morbid appearances, other than these granulations, were discovered.

Besides these milliary grey granulations, there is another lesion, similar in character, though without definite boundaries, which is termed tubercular infiltration. This lesion presents the same appearances as the granulations, being of a grey sem-

=transparent colour; homogeneous, hard and shining. though in its masses differing from the granules in point of size and irregularly circumscribed boundaries.

Like the granulations, this grey infiltration proceeds in the same course of development towards complete tubercle. In it are found minute points of yellowish tubercular matter which increase until the grey masses are transformed into masses of yellow tuberculous infiltration. Both varieties (by some considered to be such) may be observed at the same time, being but different stages of alteration in the same substance. This yellowish infiltration can also be distinguished from crude tubercle - properly so called by the irregular manner in which it is circumscribed.

Thus, has the subject been brought from a consideration of "nascent tubercles", to the examination of tubercles in their "crude state". But, before proceeding with the description of crude tubercles, we will delay, but for a short space, to notice another de=posit - gelatinous infiltration; which, according to Louis,

is, exclusively, found in Phthisis. Gelatiniform infil-
=tration is a substance, sometimes nearly colourless, some-
=times of a reddish appearance, and, in its consistence,
resembles jelly. By Laennec, this is affirmed to be
tuberculous; while Louis has never observed in this
lesion, any marks of a tuberculous character.

It has been observed, that, in the grey semi-
=transparent granule, yellowish spots were observed,
which, in due course of progress enlarged until
the granulation became converted throughout its
extent into tubercle. This is Crude Tubercle. This
is the condition of tubercles when they are sur-
rounded by healthy - or comparatively healthy -
lung, and before they undergo any further change
in quality or in their contents. They are roundish,
friable, opaque bodies, varying in size from a pea
to a pigeon's egg; of a dull yellowish white colour
and having a consistence similar to that of cheese.

Their rounded shape is not an important peculiar characteris-
=tic; for, according to research, the form of tubercular
deposite is often determined by the nature of the
tissue in which it may be thrown out. Thus, tubercles

in the brain assume a roundish shape because equal pressure is exerted upon them on all sides. So, also, roundish tubercles are found in the lungs where pulmonary vesicles have been filled up with their matter; and round tubercles may also accidently be thus formed. In the smaller ramifications of the pulmonary vesicles the tubercular matter has been found, upon careful dissection, to pre= =sent the appearance of twigs with branches, and it may be in this manner deposited in the Fallopian tubes, or, in the kidneys or vesiculae seminales, so as to make a complete mould of the parts occupied by it.

Tubercles have almost invariably been found more numerous at or near the summit of the lungs where they are also much more advanced than in any other part. Indeed the degree of development has been observed to be, in the lungs, from upwards below. ". Grey granulations, tuberculous infiltration and crude tubercle, all acknowledge this tendency. In addition to this, tubercles, while they chiefly infest the upper portions of the lungs, also affect

upper and posterior parts of upper lobes, and, accor-
=ding to the researches of Louis, would seem to pre-
=fer the left lung to the right.

There has been much disputes as to the actual seat of tubercle. All pathologists are not agreed concerning the particular tissue they (tubercles) inhabit. One set of opinions upholds the areolar tissue as the seat of tubercle; while others, among whom Carswell is prominent, contend that it is on the free surfaces of mucous membranes, or, in their cavities that tubercle is chiefly to be found, almost universally, though, sometimes, it may be discovered elsewhere. Next to mucous membranes, Carswell, and his followers, mention serous membranes and their shut cavities, and, also, the blood. According to this set of pathologists, the difficulty of demonstrating the presence of tubercle in some of the very minute ramifications of the lungs prevents this fact from being so apparent. Yet, according to Dr Carswell, it is on the free surfaces of mucous and serous membranes, and in their cavities and in the blood, that we must, exclusively, look for the seat of tubercles; though preference is given to mucous membranes in these words: "We must, however,

repeat, that although it (tubercle) may form on se=
=rous surfaces, its seat of election is the free surfaces
of mucous membranes"

This, then, is the doctrine of Dr Carswell and
of those who adopt his opinions as to the seat of
tubercle. Before him, the areolar was generally
believed to be the tissue in which this deposit
was to be found. But neither opinion exclusively
seem to be right: for, if we adopt either, we give
strength to the doctrine of irritation as the cause
– if not the sole cause, at least the most powerful
in influencing this production – of tubercular
deposition; and must pronounce against
the doctrine that tubercular deposite is a result
of lesion of nutrition. For, if it is on the mucous
tissue, or any particular tissue that the deposition
of tubercle is determined, then we must look to
inflammation of that tissue as the producing
cause when no predisposition exists, or, as the
exciting occasion when predisposition is present,
and reject the other doctrine the deposition of tu=
=bercle is, a result of, and influenced by a pre=

=existing lesion of nutrition in precedes position trans-
=mitted or acquired. Now this we cannot
do; not from prejudice or love of a theory, but
because the latter doctrine is developed from &
supported by facts - "stubborn facts" - which have
been obtained and recorded - not adduced, as
they may suit - without any reference to, or, rather
with a total disregard of, theory or prejudice.

This matter will be more properly attended to,
when we come to the Etiology of the disease.

Regarding, then, the doctrine of tubercular
deposition as a result taking place under
the influence of lesion of the nutritory process,
we adopt the axiom - and it is the one to which
the majority of the profession seem to incline -
that, wherever the vital fluid circulates, carrying
with it the materials, tubercular matter may
be deposited, - that is, in any tissue.

There is but one variety of tubercle (encysted
tubercle) which we will notice before proceeding
with its history from the crude state until it
has passed through its different stages. Encysted

tubercles are very rarely met with. They have been described by Laennec and Bayle, though Louis met with them only once.

Crude tubercles may remain stationary, or after a time proceed immediately in their progress of development. They may remain in this unaltered state surrounded by lung perfectly healthy. As they increase in size or in number, and approach each other masses of them will be formed, the shape of which will be determined by the channels of the deposit.

Though Carswell and the others following him give a very plausible account of the softening of tubercle, asserting that they soften from their parietes towards their centres; yet, the microscope used in the researches of other eminent pathologists contradicts this theory, by making it actually visible to the eye, and showing that the reverse is true — that is, that tubercles soften from their centres. Sometimes softening proceeds so rapidly, as to have the appearance

of taking place almost instantaneously. Dr Carswell, though denying that tubercles singly, soften from their centres, grants that masses of them may; and he explains this circumstance by saying that portions of lung (healthy or not) may be shut up, & that these, being acted upon by the surrounding tuberculous matter, or from want of nutrition, suppurate; and the pus thus formed, mixing with the deposit, reduces the whole into a softened mass, being also assisted in this, by the unhealthy pus from the parietes, which is the result of the inflammation (generally scrofulous) set up in the surrounding lung. As to the softening of individual tubercles, we have actual, visible evidence presented by the microscope, that they soften from their centres: and the softening from their centres of tubercular masses, as described by Dr Carswell, may be, and probably is true, as his description does not materially interfere with the actual evidence afforded by the microscope.

Thus we have for individual tubercles, and for tubercular masses, the law that both soften from

* Induration of the surrounding parenchyma also exists, which appears to be caused by scrofulous inflammation, and perhaps by crude tubercular infiltration.

their centres, with perhaps assistance from the results of the inflammation set up in the sur=
=rounding lung and in the portions of enclosed lung, and, in somewhat, the following man=
=ner: viz. these tubercular masses or undivided tubercles, acknowledging the tendency to soften from their centres, may remain for a longer or a shorter time surrounded by healthy lung* or may hold, shut up within the mass, a portion of the areolar tissue. Softening has been commenced and is going on from centre outwards, and may be assisted by the products of inflammation excited as follows; viz. the tubercular mass, in=
=creasing by the addition of other tubercles, pres=
=ses upon the surrounding parenchyma and inflammation results. This may be different in kind; but, as the scrofulous diathesis is present, the inflammation is generally of the scrofulous character, and its appropriate results occur. Pus, not of a laudable ~~character~~ kind, is thrown out around the tubercle or tubercular masses, which loosens it from the surrounding parenchyma, and, perhaps,

assisted by the inflammation of the enclosed portion of lung, besides loosening the tuberculous mass already softened or softening from the centre, it mixes with it, and the whole mass softens completely and "breaks down" forming a "detritus" which finds its way to some bronchial canal and is expectorated. Thus is left what is termed a "cavity", "cavern", "excavation" or "vomica".

The size of a cavity - and there may be more than one - the formation of which has just been described, is variable. They have been observed sometimes of the size of a hazelnut, and sometimes equal in size to a goose egg, or even larger. Between these there is every variety of size.

As tubercles are more numerous and larger at the summit of the lungs, and also in the upper and posterior parts of upper lobes; so, of course, it is in the upper and back part of the lung towards the summit the largest tubercular cavities are chiefly situated. Indeed, it is rarely or never that the middle or lower lobes exhibit cavities of any considerable size. Cavities situated in the upper

and back parts of the lung, towards its summit, frequently lie so close to the pleura that nothing seperates but a thin wall of more, or less diseased lung.

Bearing in mind another feature of the deposition of tubercle — that it derives form from the structure in which in which it is thrown out — the shape of tuberculous excavations will be readily surmised. Accordingly, some are round — others appear compressed or flattened; some have rough, jagged edges, while others again are smooth and almost regular as to their parietes.

The parietes of cavities, themselves present upon their surfaces different appearances. About the third month of the disease, they are found soft and somewhat ragged. After the vomica is emptied and becomes, as it were, stationary, its sides becomes smooth and a false membrane is formed so as to line them, and the pulmonary parenchyma is rarely exposed in any part of the cavity — though, sometimes, there is no membrane lining the parenchyma which is more

or less modified. This false membrane may be easily seperated from the parieties of the cavern, which are somewhat indurated - a state varying, perhaps, to grey semitransparent infiltration.

Sometimes the false membrane pours out a depraved purulent fluid though this is not often the case.

In old cavities, their lining membrane lays under another slighter membrane, of a yellowish white colour, which covers it in patches. This lining membrane is of a dense, grey semitransparent and semicartilaginous consistence.

In the softening of tubercle previous to emptying of cavities, can be again seen the tendency to progression of development from the upper portions of the lung to the lower, through the stages of grey granulations, or infiltration, crude tubercle, and softening tubercles and masses, the expulsion of which form the excavations. Obeying this law, tubercular masses gradually soften from their upper portions towards the lower, so that an incomplete cavity may thus be left.

But, in Acute Phthisis the progress of softening may be so rapid as to be almost simultaneous and perhaps it is simultaneous: yet even in these cases there may remain tubercular matter softened, indeed, but not so much as the rest, - so that even here an incomplete cavity may be left.

Besides the tuberculous portion of an excavation, there are other substances which go to make up the sum of its contents. The general character of the contents of a vomica is determined very much by the age of the cavity. The debris of a cavern recently formed are of a yellowish colour resembling pus, and in consistence thick. In older vomicae, where the parietes share in the breaking up of the contents, the latter exhibit a dirty greenish colour and are sometimes tinged with blood.

Among the most interesting of the contents of a cavern are certain bands of grey semitransparent matter.

The bands, besides the grey the grey semitrans=

=parent matter, are interspersed with tubercles. They are uneven in length and as to their surface. Sometimes, though rarely, vascular ramifications are observed in them; and this circumstance is advanced by some to show that the pulmonary parenchyma must be destroyed, by being, as was mentioned above, engaged between coalescing vomicae, and broken down with their contents. The portion of lung, however, which is enclosed in a cavern is not always destroyed, as it has been met with in a comparatively healthy state, presenting very much the appearance of lung which has been submersed for a time in liquid.

Among the other contents of a cavern, fibrine is found.

The age, at which cavities are generally found empty, is about the commencement of the fourth month. Their contents are generally without odour, though, sometimes, they are very fetid. Another characteristic of

vomicae, is, that in children they are not so apt to form as in adults

The progress of tubercle, which has been described, through its different stages, is the rule, and gives to the disease, its almost invariably fatal character. For, the disorganization of the lungs - greater in some cases than in others - interferes with their functions, and thus life is destroyed. This is the rule and almost an invariable one. There are exceptions, conversely rare indeed, but such that in them recovery may take place. A cavity, instead of proceeding in the usual course, may be, as it were obliterated: Secretion from the parietes of pus and other matters being stopped, the parietes may become puckered, and, approaching each other, become united by a firm cartilaginous substance. This is one of the exceptions to the general course of tubercle. The other is, where tubercle appears to be changed into chalky concretions, composed chiefly of carbonate and phosphate of lime, sometimes softer than

at others, and varying in size from a pigeon's egg to a walnut. These appear to be either direct chalky additions, or, the earthy residues left after the albuminous or other constituents of tubercle have been removed by absorption. These exceptions are the favourable tendencies of tubercle; and we would have more to hope for as to the curability of Phthisis, were we able to prevent fresh deposition of tubercle; or, at least, to hinder the further progress of what other tuberculous deposit might exist, by improving the function of nutrition upon the lesion of which the disease depends. This is the indication for treatment furnished by the favourable tendencies of tubercle, and though they be upon the existence of which, or rather upon the hope of giving them existence, are based our curative means unhappily too often unavailing.

This concludes what I have to say of tubercle in progress of deposition & development.

In Phthisis, adhesions are almost invariably found when tubercular disease is extensive, and generally correspond to the size or portion of a side affected. Effusion of clear fluid is observed towards the close of Phthisis.

There is, also, generally, more or less Pneumonia attendant upon Phthisis, and this in rather small patches than to any extent. Hepatization of the lung is comparatively rare; and the most serious pneumonic affections occur towards the close of Phthisis, constituting, very often, the immediate cause of death. These pneumonic complications chiefly affect the lower lobes.

As to the morbid affections of the air-passages, the bronchial tubes exhibit very frequently the appearances of inflammation, and are found reddened, and, when reddened, often thickened somewhat, — sometimes dilated and indurated especially in the upper lobes. The bronchial tubes frequently exhibit tubercular matter, and ulcers

also are found on their mucous surfaces.

Upon the Trachea ~~xxxx~~ ulcers are also met with on ~~the~~ mucous membrane which, when there is much ulceration, is generally of bright red colour. Sometimes the ulceration lays bare several of the cartilagenous rings, and appears to prefer the posterior portion of Trachea.

The Larynx and Epiglottis present also frequently ulceration which may destroy one or more of the vocal chords, or denude the base of the ~~arytenoid~~ cartilages. Ulcerations of the Epiglottis generally occur on its under surface

As the most interesting and important part of the pathology of Phthisis is the Morbid Anatomy of the pulmonary organs; the pathology of the rest of the organism demands less attention and will be rapidly passed over. The state of the stomach and intestinal canal will be first described, as they present the greatest array of morbid appearances.

The Pharynx and Esophagus are almost always healthy.

The mucous membrane of the stomach is commonly discovered in an unhealthy condition, though this is not peculiar to Phthisis as other chronic diseases may exhibit the same phenomena. The submucous cellular tissue is generally sound; being rarely completely softened. The mucous membrane is commonly, though not as a matter of course, thinned, enlarged, reddened, softened, mammellated and ulcerated. These are the chief morbid appearances met with, though I have not arranged them with a regard to their groupings - that is, the combinations which they form - or with any respect to the portions of the membrane affected.

In the pathology of the intestines, the Duodenum is generally found in a healthy state. In the small intestine, tubercular matter, generally accompanied by ulceration, is met with. The mucous membrane is thickened,

reddened, softened and may have beneath it, abscesses.
The agminated glands opposite the mesentery, have been found ulcerated, even when the sur=rounding membrane was healthy, and through them perforation occurs. Ulceration is most common in the lower portion of the small intestines.

The lesions of the large intestine are very similar to those of the small intestine.

These are the intestinal lesions chiefly presented; though they do not all invariably occur, or at the same time, nor are they, with the exception of tuberculous matter peculiar to Phthisis.

The organs of circulation are generally found without lesion peculiar to Phthisis; and, as this is very much the case with respect to the other organs of the body, no further mention will be made of them. than to say that tuberculous deposit may be met with in the lymphatic glands, brain and its membranes; and, indeed, in most of the organs of the body. The liver presents a singular adipose condition, which, from this circumstance has been called fatty liver.

IV. Causes of Phthisis.

I believe it to be true as a general proposition, that the deposition of tubercular matter is the "essence, part and parcel of the disease - its cause. I mean to say that it is the proximate cause - the disease itself.

Now what is the condition upon which this deposition depends, and by which it is influenced? From Pathology we must see that the condition or lesion must be a general one: for, though the amount of this deposit is greatest, and its results most important in one part of the body, its general occurrence in other parts, very often simultaneously, precludes the idea of its dependence upon local causes (except as indirect agents) influencing lesion of this character. This being the case, the deposition must depend upon a constitutional agency or affection of the system.

The contest lies between the doctrine of innutrition as the cause of tubercular disease, and that which upholds lesion of the nutritive process as the cause influencing the deposition of tubercle.

That inflammation is not the sole origin, or even the chief agent in producing tubercle, appears to me evident from what has been said regarding the general constitutional character of the producing cause. For, certainly, as pathology shows this le=sion to be a general one; and, as the agency must be also general; it seems somewhat absurd to sup=pose irritation to be that agency, for then, also, we must suppose the result to be a constitutional blaze. But under this general irritation, the powers of life would soon succumb, and the disease itself run through its stages in a period of time in=consistent with its actual character; as we may have the deposition of tubercle going on for years.

How then, tubercles being almost constantly present in other parts of the body at the same time with the deposition in the lungs, are we to explain the influence of the inflammation upon the extra=pulmonary deposit? Sympathy, that overworked pack-horse of obscurity and doubt, will not bear this additional burden.

Another argument against the doctrine of irritation

is derived from the characteristics of some of the
diseases complicated with Phthisis and accused
of causing. Pneumonia, bronchitis acute and
chronic, pleurisy, accused of being the entitatores
of Phthisis — not these diseases as attendant
upon and complicated with Phthisis, but occurring
as the primary occasions to which it is referred
for origin — all present peculiarities inconsistent
with what is observed of Phthisis. In pneumonia
we have have the lower portions of the lung chiefly
involved, while, in Phthisis, it is at the summit,
or towards the summit, that tubercular deposit
chiefly takes place. Also, double pneumonia seldom
occurs, while in Phthisis, both lungs are found to
be occupied by tubercular lesion; or, if there be a
preference for either, it is, according to Louis, the
left, while pneumonia chiefly affects the right. (Watson
Cleveland).

In bronchitis, auscultation of the lower portions
of the lungs, yields the most appreciable results,
though the bronchitis may be diffused throughout
the lungs. But this yields nothing, as diffused bronchitis

is, in tendency, fatal; and would be more apt to cause death by its own violence, than by the method of influencing, insidiously, deposition of tubercle.

Even, if the argument from the chronic forms of bronchitis be advanced, it will be met by the fact that pulmonary tuberculous deposition has been observed without any of the evidences of inflam=
=mation: and the same is true with respect to pneumonia and pleurisy). Besides, in persons who are obnoxious to bronchitis, as well as in those who are not, Phthisis is equally frequent.

Similar remarks to the foregoing on pneu=
=monia and bronchitis are applicable to pleurisy; and it is peculiarly common to these alledged causes of Phthisis, that they are more liable to occur in men, while research shows the greater proportion of those attacked by Phthisis to be females.

Other exciting or irritating causes, as direct primary agents in producing Phthisis, are plausibly liable to strong objections. Such are the influence of stress, wounds of the chest, inhalation of dust or

irritating particles of any kind, or of acid vapours which, all, would rather produce as their direct results, inflammation whether of the pleura, substance of the lungs, or air-passages.

A newspaper paragraph exhibited to me the extent to which the doctrine of imitation may be carried. About a year ago, I noticed in a newspaper, a sapient piece of pathological conjecture in an accident from chloroform. The patient had taken an overdose of this agent, and it was given, as the opinion of his attendant, that Phthisis had resulted. This opinion was arrived at in less than twenty four hours from the occurrence of the accident. This is only equalled — perhaps surpassed — by another newspaper pathologist who informs the world at large, that consumptives may get along reasonably well, during the formation of one, two, three, four, five, or six tubercles; but, as soon as the unlucky seventh forms and bursts, the patient might as well engage his coffin and immediately set his house in order — which he needn't do, if

* Vide - p. ~~46~~ - 49.

he only come in time, — before the formation and deposit of the seventh tubercle, — to the wise gentleman who has made this discovery.'

Then, — continuing our proper subject — from pathological reasons, the doctrine of irritation appears to me untenable. All the circumstances point to some preexisting state or condition of the system, the result of predisposition hereditary or acquired.

Now we have strong negative evidence in favour of lesion of nutrition as the cause of Phthisis, from the teachings of pathology, that irritation cannot be that cause* — that is, a direct cause; for it is not denied that irritation is an indirect cause, interfering, as other agents may, with nutritive function. No one, I think, affirms that Struma, is the result of inflammation per se: and scrofulosis and tuberculosis, we have seen to be identical.

Besides this negative evidence with respect to irritation, we have positive evidence of the dependence of Phthisis upon lesion of nutrition.

All authors agree, at least, that lesion of nutrition may be produced by certain agents, and, that this lesion may, also, produce Phthisis. This is yielded by those even who support the doctrine of irritation.

Therefore,

as it is admitted that lesion of the nutritory function may produce Phthisis; and, as it is proved from pathology that irritation, directly, cannot; - we must adopt the doctrine of lesion of nutrition as the cause of Phthisis and give as the final definition; - that Phthisis is the result of lesion of the nutritory process resolving into a state or condition, or predis=-position, which may be haereditary or acquired, and upon which condition or predisposition the disease depends

Thus, then, as we adopt lesion of nutrition as the direct cause of Phth, and this lesion is itself, resolved into the state or predisposition predicated, constituting part of the disease; and, further, as this predisposition may be haereditary or acquired; we have the predisposing occasions

divided into such as are hereditary, and such as tend to the acquisition of the constitutional condition mentioned.

Of the hereditary occasion of Phthisis, I shall say but little more, than that no disease presents a better attested hereditary character than does Phthisis.

I will, also, as attention has been chiefly given to the other divisions of the subject, barely do more than enumerate the occasions of acquired predisposition. These are such as have a depressing effect and thus interfering with the elaborating function. It is among these also, that pneumonia, pleurisy, the action of irritating substances upon the lungs, bronchitis, acting as so many shocks to the system, find their proper places — producing their effects, thus indirectly. Besides these; sedentary avocations, exhausting habitual discharges, bad hygiene, bad air, insufficient nourishment, improper clothing, depressing mental emotions and deprivation of fresh air and sunlight — all, are agents coming under this classification. Unequal temperatures

are also to be added to list, and we have seen that sex, also, exerts some influence upon the disease.

These occasions are those which call into being what is termed the acquired predisposition: but they may act also upon that transmitted hereditarily, by provoking the diathesis to the evolution of its dormant tendencies.

V. General Description of Phthisis.

Phthisis is a disease dependent upon and the result of lesion of nutrition. The deposition of tubercle is its most important and chief morbid product. In its inception and during its progress, its tendencies are almost invariably ~~fatal~~, though the disease is not incapable of cure which, in rare cases, may take place, as has been observed.

As to its duration Phthisis may be acute or chronic. It may remain for some time unsuspected, and, from the time the disease is first noticed, it may reach its termination in twenty-four days or three months; or, the term may be extended to a period of twenty years:— the disease sometimes progressing steadily all the while, and sometimes very retarded

and delayed for a time in its course).

Phthisis may occur in any temperament, though some, as for instance, the lymphatic seem more obnoxious to it. Sex offers no im=
=munity, though the proportion of females af=
=fected is larger than of males.

The occasions which may prove to fur=
=ther development of a phthisical diathesis already present hereditarily or acquired, or which tend to the formation of such diathesis, are those which act by depressing the vital powers and inter=
=fere with the proper exercise of the nutritive function. As examples of these occasions, we may advance any violent or long continued shocks; bad hygiene; certain avocations which, from deprivation of fresh air, food, exercise, and from constrained posture, interfere with the due process of elaboration; depressing mental wear and tear - including under this head the im=
=proper mental education of children; improper education of children mental and physical; weaken=
=ing chronic diseases, and under this head we allow

chronic inflammation is due importance; certain diseases of children, the excesses of youth and the infirmaties of age. In short, the enumeration and discussion of the occasions, might, of themselves furnish ample materials for a thesis.

Phthisis is evidenced by certain symptoms and certain physical signs which will be, as briefly as possible, attended to in the next division of the subject.

VI. Diagnosis.

Of the symptoms, some of the most important have been already enumerated.

Cough, is one of the symptoms generally first complained of — patients, very commonly, referring their disease to <u>cough</u> or <u>cold</u>. It is at first of dry character, or, attended with mucous expectoration, and is generally first noticed as occurring in the morning. Some patients have not cough at first and it may not be perceived until towards the close of the disease. Sometimes, though rarely, cough may be absent throughout the entire duration of the disease, even in those cases which prove fatal. Nausea

* The result, not the cause of Phth.

and vomiting frequently attend the paroxysms of cough.

The sputa said to be most characteristic of Phthisis are generally described as consisting of flocculent masses which, when spat into an empty vessel, exhibit flat circular appearances distinct from each other. The earlier expectoration, is generally stringy transparent and frothy, having floating within it yellowish or greenish opaque masses.

Dyspnea is generally only extreme towards the close of Phthisis, and is frequently excited or aggravated by paroxysms of cough.

But a far more important symptom, - perhaps the most important - is haemoptysis*, which is the expectoration of blood in larger or smaller quantities. Though Louis may perhaps lay too much stress upon this symptom, yet it is of fearful import, and, laying aside vicarious haemorrhages, it generally indicates the presence of tubercles.

Haemorrhage from the lungs is the consequence of tubercles and not their cause, and it rarely occurs before puberty.

Pain, as a symptom is not very important and is sometimes absent. It is of a fugitive character and generally infests the back under and between the shoulders.

Hectic fever is generally observed towards the closing of Phthisis, and, when intense and persistent together with nightsweats in proportion, indicates a short duration of the disease. Hectic fever in its inception is insidious and may be perhaps for sometime unnoticed. A rigor attacks the patient at evening. At night he has slight feverishness, which is chiefly shown by burning of the hands and feet and, is supplanted towards morning, by sweating which does not always bear proportion to the fever and does not seem to relieve it. Hectic fever sometimes ceases suddenly and returns and returns as suddenly.

In Phthisis, the pulse, is generally accelerated and this is somewhat in relation to the urgency of the disease.

Thirst and appetite are symptoms exceedingly variable.

Diarrhœa is very frequently attendant upon Phthisis and is chiefly urgent in the advanced stages when it is of the colliquative character. It is a grave symptom, as it aids powerfully the other untoward tendencies of the disease.

In Phthisis, the wasting is extreme. Indeed, it is from this symptom that the disease originally derives its name, as it is one of the earliest, and proceeds to a great degree before there is any apparent cause to account for it.

Now, if all these symptoms were presented, we could be able readily to diagnose Phthisis; but, as we do not always have all or a sufficient number of them to make them available, recourse must be had to the physical signs yielded by auscultation and percussion. The chief of these, I will briefly enumerate and describe.

First in the enumeration we have the sounds proper to solidification. Then, as adhesions take place we have the sounds which indicate this event.

There is a sound, heard in a circumscribed

space, produced by the entrance and exit of air bubbles through the detritus of a cavern, pus, vitiated mucous or other liquid. This is gargouillment. But mere gar=gouillment does not indicate a tubercular cavity, as globular expansion of dilated bronchi may be the cavity in which the gurgling is heard. This gurgling is rarely heard in common inflammation.

In a large or small vomica void of liquid, another sound may be heard, hollow, when the vomica is large — or when the excavation is small, this sound may be subject to many varieties which, for description, I leave to the happy faculty for simile possessed by our Professor of Theory and Practice. This sound just spoken of is termed cavernous respiration.

There is a sound — metallic tinkling — heard over large vomicae which (especially when associated with pectoriloquy and tracheal respiration) indicates existence of a tubercular excavation filled with air and fluid. This sound is also heard in pneumo=thorax. "Both of these conditions imply, in general,

the existence of tubercular Phthisis. (Walson).

Percussion generally yields a dull sound, and a cavity, which is the result of induration of the surrounding layer of lung. Where there is large resonance, there must be a very large excavation; and, in this case, with respect to the sound produced, the induration walls of the cavern will have the effect of the sides of an empty cask.

Pectoriloquy, is the term used when the voice seems to issue through a cylinder directly from the chest, and is a very important sound, though not exactly pathognomonic of Phthisis.

As the differential diagnosis of the different forms of Phthisis would consume too much space, I will only make a few remarks upon the general diagnosis - using for this purpose, some of the symptoms and physical signs above mentioned.

In the earlier stages of Phthisis the diagnosis is difficult - often impossible.

When a patient presents with continual, hacking cough - dry, or attended only by mucous expectoration; when there is, also, unaccountable emaciation; when

he complains of fugitive pains about the shoulder and his pulse appears habitually increased in frequency; when, to these, are added haemoptysis and dulness on percussion under the clavicles, or undue alteration of the healthy sounds of this region, the diagnosis would be, almost completely, certain that there was tubercular disease.

But, as these indications may not be always well marked, final diagnosis should be de-layed until a somewhat later period. If then, joined with the first signs (or even if these should be incomplete) we should find hectic and night-sweats and any, or several of the well pronounced physical signs, - cavernous respiration, pectiloquy, or metallic tinkling, - we may regard the existence of tubercular disease as certain - that is, as far as circumstances before death can induce belief.

As bronchitis is the disease most liable to be confounded with Phthisis, I will consider only the differential diagnosis between them, as this may stand, somewhat, as the type for that between Phthisis and some other diseases next in liability

* I mean to include under this, the whole upper portion of the chest bounded in front by the subclavicular region.

to bronchitis, to confusion with Phthisis

The phenomena of bronchitis are chiefly evidenced in the examination of the lower portions of the chest; while the reverse is the case with respect to Phthisis. In bronchitis there are wanting the sputa said to be characteristic of Phthisis. There is, also, less emaciation, less prostration, and the absence of haemoptysis. Though there may be cavernous respiration in bronchitis, yet it is not so well pronounced as in Phthisis. In our differential diagnosis, bronchial dilatation is the most puzzling event, with which we have to deal. However, here, the bronchophony is more diffused than is the pectoriloquy of Phthisis, and, as a general rule, the evidences of bronchitis are more diffused throughout the chest, than the evidences, of Phthisis, which are chiefly to be met with about the subclavicular region* and, perhaps, more particularly in the left than in the right lung.

VII. Prognosis.

The prognosis of Phthisis is, in nearly all cases, unfavourable. But cure may take place according to the methods mentioned in the examination of the pathology of Phthisis.

When we perceive the symptoms - cough, expectoration, heetic, haemoptysis &c - to disappear, we judge that cure is being effected in the modes described. When this most favourable accident of the disease has occurred, we are encouraged to hope for immunity from further accession of the disease - and sometimes this is the case.

But again, though many of the symptoms disappear, the disease may not be cured - it merely stands, still it is retarded in further progress - and, perhaps, no further depasition may take place. This is the next and most common favourable tendency of Phthisis. Though there is not cure, the halt of the disease may be for so long a time, that the patient may recover flesh and improve

in emaciation generally, and, at last, die of some other disease.

VIII. Treatment.

Of course, all our efforts at treatment in Phthisis, are to have as their aim, these happy results.

The indications for treatment are furnished by the pathology of the disease, and are; the prevention or removal of the lesional cause, and the alleviation of the symptoms to which it gives rise.

Accordingly, I will divide the treatment into that which is Hygienic, and that Medical.

The hygienic treatment is important, both in itself as to prophylaxis, and, in connection with the medical treatment after the inception of the disease. The indication is to prevent or remove the lesion of the nutritive process, by due attention to proper amount of clothing, air, sunlight and exercise; to diet suitable in kind and quantity, - not that of the beefsteak-stuffers or the

one hand, or that of the vegetable starvists on the other — but diet digestible, nourishing, life-giving.

Let our patient not seek cure in laziness — strength is not be gained from too great nursing and care-fulness — let not the bed be his refuge, for an active life in the open air is that, upon which he must rest his hope; except, indeed in cases as are advanced in their stages past all hope. He should avoid changeable temperature, or, where this is impossible, he should endeavour to obviate its effects, — not by indoor seclusion — but, by the proper protections, by constant regular exposure, which will habituate him to their influence, and render them comparatively innocuous, or even corroborant: for, I know from personal experience, that, active exercise with constant exposure, even in wet up to the waist, to the cutting north wind and snows of winter day after day will break up a long series of "colds" which confinement in a warm stove room fosters and perhaps engendered. I do not mean, however, that the patient should be exposed to extremes — to the chilling blast of Aquilo, or

the rays of Sirius – but let him not be too careful of "taking cold". The disease does not depend upon pneumonia, bronchitis or pleurisy, but upon lesion of nutrition.

With respect to children, in whom we fear, in the coming future, further development of their phthisical tendencies – or, even children in whom there are no such tendencies – good hygiene, the great prophylactic, is to be carefully attended to. For we have seen that Phthisis, besides coming on as the result of its haereditary nature, may be also acquired. Therefore, to guard against the inception of the disease in both events, we must clothe children sufficiently; promote their cleanliness, – but not so as to prevent their running about at will, in or out of the dirt; we must air them well, exercise them well by letting nature teach them in this respect, and expose them freely to the life-giving rays of the sun. As to their food, it should be such as is nourishing – no coffee, no tea, no stimulants, which all are not for children – but food nourishing, easily digestible

and plenty of it. It is an unlucky circumstance for strumous children, that they are frequently precocious. To gratify parental affection and pride, they are mentally overworked, and the function of innervation diverted towards attaining mental superiority, when nature intended it to be solely applied to physical education. Therefore let nature be the teacher and guide of children. The satchel will yield more valuable and enduring knowledge, when opened for the first time at ten, than at five years of age. Then let them run at large; and, in the merry sports of innocent childhood, expand their limbs and develop their powers of life - thus, finding health, strength and happiness. Let this be the hygiene of both sexes.

Where a tendency to Phthisis is feared, in the choice of a profession, that occupation should be preferred which would enable youth and manhood to lead an active life. Because a child is "delicate", parents should not seek to place

him under circumstances where no bodily toil is to be encountered, but, the reverse.

All depressing mental emotions are to be guarded against,—in short, all circumstances which interfere with vitalism, are, if possible, to be obviated.

The medical treatment is, too often, unavail-ing. We are, generally, enabled to use it only as palliative, as timely notice may not be given; and, even if early attention be directed to this disease, we are often compelled to see our remedies only relieve for a time the most distress-ing symptoms.

One of the worst results of the doctrine of irritation is, that it would lead to too active treatment in this disease. We cannot hope, as an old author somewhere has it, to

"Cure the Phthysick"
"By dint of Physick".

But though this disease is not generally amenable to the antiphlogistics, yet, when symptoms of serious, active inflammation arise,

they must be appropriately met, always, however with due reference to all the circumstances of the disease.

Tonics and alteratives are generally indicated. Quinine and steel may useful in treating in upon the hectic. Iodine promotes the general health; and we are encouraged, by our respected Professor of Materia Medica, to hope much from the use of cod-liver oil both as an alterative prophylactic, and, as an agent which may retard the progress of the disease. The diarrhea may be met, with astringents such as acetate of lead and opium, prussic acid, catechu, kino &c; the perspiration with tinct. Muriat. ferri, the mineral acids and sponging the body with vinegar &c; & the cough with opium, prussic acid, hyoscyamus &.

But unfortunately the necessity for the employment of our medical treatment renders this almost useless for cure. We can, however, depend more upon, and hope more from the hygienic treatment, and should give careful

attention to it prophylactic or assistant. We should call around our patient pleasant mental influences, and, if it be within his reach let him travel – let him snuff the breezes of the sea and derive benefit from their invigorating influences. Let him not adopt the present fashion of seeking pleasure by steam, but, if strength permit, his be the garb of the pedestrian friar, with the curiosity of the Yankee, the vivacity of the Frenchman and the Englishman's peculiarity – sober, regular attention to health. Let England delight him with her fine old Cathe= =drals and resting places of the illustrious dead, and Scotland, with song and tale, speak to him in Melrose, of the past – let France, rich in the glories of science and arms, amuse him with her characteristic vivacity and instability, and instruct him from the recent events of her history; and in Germany, let him quaff the bubbles from the Brunnen – Let Italy, gentle yet impassioned soothe him with her gushing, loving melody – and Greece, first cradle of liberty, call up to him memories of

his own distant Freiheit-land. Or, in our own land, he, may learn lessons of health from the Camanche as he dashes on his head long steed over the wild prarie; and, in the new order of influences these surrounding him, may be broken up the old chain of ~~morbid~~ tend=encies which jeopardized his existence. Thus, if timely attention be directed to these means, in addition to those which our art affords, he may hope — "Peradventure the Lord may turn away from him this grievous sickness that he hath," and years of happiness and usefulness, be added to his, otherwise, brief span of existence.

An

Inaugural Dissertation

On

Dysentery

Submitted to the examination

Of the

Provost Regents & Faculty of Physic

Of the

University of Maryland.

for the

Degree of Doctor of Medicine

By

James. William. Miller.

Fred. Co.

Md.

1849.

In accordance with the long established rule, requiring of each candidate for graduation a thesis of his own production to which I cheerfully comply; and in thus discharging my duty, however embarassing, I must be content with following in the beaten track of others; for in surveying the vast field over which I might graize, I can find nothing which has not been thoroughly investigated and improved by others. It is therefore impossible for me to light upon any thing new, untill subsequent experiance shall have proved the inconsistency of the present conclusions. It is then and not until then, that I will have an opportunity of advancing a single new Idea; nor can the faculty expect it of me. My Object in selecting this subject, is simply because I have had frequent opportunity of observing the various stages of the disease in the wards of the infirmary.

Dysentery

Dysentery is inflamation of the mucous membrane of the colon and rectum, characterized by small mucous or bloody evacuations, griping pains in the abdomen, straining at stool, and tenesmus. Inflamation in the colon, without these phenomena, would rank under enteritis. Dysentery may be acute or chronic

Acute Dysentery

Acute dysentery may occur with or without premonitory symtoms. The acute form is known by a flux from the bowels, attended with violent pain, a constant inclination to go to stool, and generally, more or less blood in the stools. There is generally uneasiness, lassitude, impaired appetite, dull or transient pains in the abdomen and other evidences of moderate intestinal irritation. It begins like other forms of inflamation with chilliness, loss of strength, a quick pulse.

great thirst and an inclination to vomit.
The stools at first presents a greasy and frothy
appearance afterwards they become streaked with
blood, mixed with small filaments resembling
bits of skin. When the patient goes to stool,
he feels a bearing down, as if the whole bowels
where protruding, and sometimes a part of the
entestins do actually protrude, which proves
exceedingly troublesome, especially in children. The
discharges often occasions a burning or cutting pain
in the anus, which leads the patient to dread their
return, and to resist the disposition as long as
possible. The passages are seldom less than a dozen
in twenty four hours, and often double or triple
that number and sometimes in very bad cases
have been knowen to amount to one hundred
in a day. There is generally more or less tenderness
in the abdomens and the extent of the infla
mation upwards along the colon can some
times be traced by ascertaining in what parts
pain is produced on forepsure. When the tenderness

is observed over the epigastricum, and along the right side, there is reason to believe that the inflamation has reached the transverse and ascending colon, and that the whole of the large intestins are involved. The pulse is accelerated and usualy somewhat full and forcible. The skin warm and dry, the urine scanty, the tongue moist and covered with a whitish fur. Occasionally in cases of some severity the vital forces sink temporally under the violence of the impression made on the nervious syotem. The patient experiences an indiscribably painful feeling of hollowness or sinking in the abdomen attended with a cold damp skin, a full and allmost thread-like pulse and sometimes nausea and vomiting. In a majority of cases of simple dysentery, it takes a favourable turn about the eighth or ninth day, and the patient recovers. But if the symtoms should not give away, by ten days or two weeks, the symtoms generally

becomes aggravated. And if the tenesmus and tormina should be increased the abdomen becomes swollen, and more tender, the discharges more frequent, the pulse weaker and more rapid the patient exhausted and very restless, the stools more copious and offensive and instead of consisting chiefly of mucous or blood, are mixed with purulent matter. We sometimes have saliva or vitiated secretion from the upper bowels. Sometimes with all these symtoms the patient recovers, but generally the desease runs into the chronic form. There is another form of desease styled by authors bilious dysentery. It is characterized by a feeling of oppression in the epigastric region more frequent vomiting, the tongue becomes covered with a yellow fur, the conjunctiva and skin presents a yellow tinge and urine high colored. there is generally high fever, delirium and a depraved condition of the billiary secretion. It is this complication which makes dysentery so dangerous in tropical

climates. Again we have the adynamic form which is caused by exposure to low damp, and wet places, also cold and unwholesome diet. This form of disease is generally known by the symptoms putting on a typhoid type or being aggravated, such as nausea and vomiting, great thirst, a frequent feeble irregular pulse, a brown or black dry tongue, with sordes on the teeth. The skin sometimes becomes dusky, cold and sometimes covered with dark livid spots. The stools are found generally more copious and brown or black than in the simple form. There are several other complications of dysentery such as Intermittent or remittent &c but I will not describe them but will go on with the

Prognosis.

In Sporadic cases if proper cleanliness be attended to, the pain less frequent, tenesmus diminished and the stools approaching nearer their natural appearance the prognosis is generally favourable But when you find the extremities and skin

becoming cold, a livid or purplish line around the fingers nails, a frequent & feeble pulse delirium subsultus tendinum and symtoms of the most unfavourable kind it is almost certain to prove fatal. The danger is proportionate to the extent of colon involved. If on examination we find tenderness on pressure along the whole track of the colon showing the inflammation to be uniform throughout its whole extent, the prognosis is unfavourable. Our prognosis is unfavourable when it prevails as an epidemic as in jails, hospitals, armies and low marshy districts.

Anatomical Characters.

Upon examination after death, we find the mucous membrane of the colon and rectum presenting the ordinary signs which generally characterize inflammation. It is generally red thickened and sometimes ulcerated. Gangrenous sloughs are sometimes discovered especially when the disease occurs in the malignant form. Ulcers are generally found more frequently in this

form of desease than any other acute inflammation except in the follicular enteritis of Typhoid fever, and small pox. We sometimes find the redness, thickening and ulceration extending deeper than the mucous membrane and sometimes involves the whole parietes of the bowels, except it may be the peratoneal coat which it very rarely penetrates. In cases of long duration the mesenteric glands becomes enlarged and softens, though seldom or never arriving at a state of suppuration. We also find that the inflamation extends sometimes from the colon into the entestins, and even up to the stomach. I have now endeavoured to give some of the anatomical characters of Dysentery.

Causes.

As it regards the contagious nature of Dysentery various opinions have been held. Whilst some authors view it to be a contagious desease - others deny that it is contagious under any circumstances. As for my part, I think

that under certain conditions of the system.
It may be propigated by contagion — yet as a
general matter I believe it to be a noncontagious desease being produced by the impression
which is exerted on the systems by epidemic
and atmospheric influences, Again it may be
produced by bad hygiene — such as damaged flour,
animal matter, spoiled beef fish &c If you
examine the intestins after death from this
cause, they are found very much inflamed, sometimes mortified and the liver much affected:
Wheat and Indian corn may be so much injured
in their growth, that when ground and used
will bring on this desease. Acid and unripe
fruits will cause it. One of the most certain
causes is cold combined with moisture: when
the pores are ~~checked~~ closed and the perspiration
checked the excitement is directed inward. It
is sometimes caused by fermented liquors — such
as ciders, weak wines, malt liquors, putrid water
drastic purgatives, worms, feculent and other

accumulation of the large intestines. Such are the causes which produce Dysentery. But as for it being a contagious desease I do not think; so, ~~yet~~ Tis true they are many circumstances which favour this opinion. Yet when we take into consideration, the manner in which it appears among us so frequently, we must conclude it to be a noncontagious affection, sometimes prevailing in an epidemic form almost sufficient to prove its contagious character beyond the possibility of a doubt; at other appearing as a sporadic desease. It has frequently been supposed and I think very correctly, that when communities are affected. It is owing probably to the predisposition which exist among whom it is raging so extensively; not only to this predisposition, but to exciting causes. In confined situations, where many Dysenteric patients are crowded together without due attention to cleanliness and ventilation, the desease appears to be communicated to others who may be

exposed; but the result is probably owing to the influence rather of putrid exhalations, which are acknowledge to be capable of producing Dysentery, than of any really contagious effluvium. Dysentery attacks persons of all ages and of both sexes, and if one class is affected more frequently than another, it is probably owing to there exposure to the cause of the desease. It is much more prevalent in summer than in the winter, in hot than in temperent climats. It is more apt to attacked persons going into different climats from that in which they had been liveing, especially if dysentery prevails at the time

Treatment

A great variety of remedies have been employed in dysentery, and different plans of treatment have proved successful, according to the circumstances of the case. In order to be succesfull in the treatment of this desease, we must take into consideration Epidemic influence

and the condition of the patients system at the time of his attack. Sometime the desease presenting in the inflamatory form, at others bearing a truely typhoid or malignant character; seeing that here are two different forms in which the desease may present, which are directly the opposite of each other: It follows as a necessary consequence that opposite modes of treatment are most clearly indicated. The first remedy, that particularly attracts our attention in the treatment of acute dysentery is blood letting. When called to a case presenting a truely sthenic character in which we find a full and frequent pulse, great pain and in short a high febrile condition of the system; It is our duty to abstract blood in such a manner, as to make a decided impression on the system. If the pulse should remain as it was before your first bleeding it should be repeated again and by a pretty large orifice. But generally

when not epidemic — are Bleeding is sufficient Emetics have been regarded as being highly useful in the commencement of this desease. When there is an inclination to vomite or nausea, or when we have evidence of irritating substances, and the Primia Vice is not sufficiently relieved by natures efforts. Emetick substances are of great value. If there should be much excitement of the system they should be preceded by proper depletion. On the other hand if we discover much gastric irritability the use of emetics are contraindicated. Of the emetics that are used the antimonials, sulphate of cupri, zinci and Ipecacuanha. Some prefer the antimonials others sulphate cupri & zinci; but according to doctor Wood Ipecacuanha is the best that can be given, owing to its mildness as well as its efficacy. Some of the others Medicines used in this desease, are cathartics

which have a tendency to change dysentery into enteritis, and bring down the scybla. We generally use chathartics before ulceration which seldom occurs before the seveneth or eighth day. But in the simple form if you keep your patient at rest and on low diet, placing over his abdomen a hop poultice - giving him a saline chathartics and after having cleaned out his bowels; give him some anodynes. After this there would seldom be any thing more required. If there should be a relapse repeat your treatment as above with the addition of enema of starch and Laudanum. The liver is sometimes affected and then becomes sluggish. and the secretion of bile becomes suspended but by giving a dose of calomel it will correct that evil. It acts mildly on the mucous membrane and also on the liver at the same time. We seldom give it in large doses except when we meet with severe

bilious cases then in pretty large doses but as a general matter we give it in 2 to 3 gr doses repeated and followed by some mild laxative such as castor oil & some prefer the neutral salts but they are more applicable when there are hot skin and fever. After the bowels have been thoroughly cleansed you may give cooling drinks and some of the diaphoretics Tartar emitic is very good when you find the skin hot and dry. Doctor Eberle recommends as being very useful a combination of ~~fifteen~~ fifteen grs of asclepias Suberose with half a gr of Ipecacuanha and a quarter of a gr of opium every two or three hours. Opium is an invaluable remedy in this desease. When opium is employed in this desease it should be given in combination with calomel, the calomel acting upon the system after the effects of the opium has subsided after the stage of excitement has subsided in

a measure, blisters have been used with great advantage, producing the most salutary effect. When the desease makes itself manifest in crowded assemblies as in jails, Hospitals, &c. we generally find it presenting the typhoid form characterized by a dark brown fur upon the tounge, sordes on the teeth, delirium and a discharge from the bowels resembling that of Typhus Fever. In this form of the desease we must treat the case according to general principles instead of useing depletory measures to the same extent as before remarked— It should be our aim to support and sustain the system of our patient, by a tonic and stimulating plan of treatment— carefully to avoid any irritating substance to remain long in contact with the seat of desease. If we find the desease assuming the chronic form it might be well to make use of— such Medicins as will

produce an alterative as well as a tonic impression on the system.

Diet The diet and mode in which it should be given is a very important part of the treatment of this disease We should as a general matter give a farinaceous diet when there is not much fever – but if the fever should present itself in the high inflammatory form mucilagenious drinks would be proper – such as an infusion of flaxseed slippery elm and sassafras pith and decoction of barely. But when the patient is about convalescing we should make use of nourishing and unirritating diet. Relapses is a frequent consequence of the indulgence of appetite which should be avoided. Due attention should be paid to cleanliness and the removal of such substances as have a tendency to increase the intensity of the disease – such as free ventilation of the room in which the patient is placed &c

The History of Five Cases

Submitted as an

Inaugural Dissertation

to the Examination of the

Provost, Regents and Faculty of Physic

of the

University of Maryland

for the Degree of

Doctor of Medicine

by

William H. Grafton.

of

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To

William Power M. D.

Professor of the

Theory and Practice of Medicine

in the

University of Maryland

These pages are

Respectfully inscribed

by the

Author.

Nathan Lemon, Colored man. Aged 56. Entered Hospital of Balto. City & County, Alms House, Wednesday Oct. 4th 1848. Labourer. On the Saturday previous, he had performed a hard days work, was warm and wet from perspiration when he quit work- upon his return home, he experienced a chill, followed the next day, (Sunday) by an attack of Cholera Morbus. On attempting to rise from the door-sill, upon which he was sitting, for the purpose of relieving himself, he fell, striking his ribs against the sill, upon recovering his feet, he again fell on the other side, bruising himself considerably, and as he thought, fracturing some of his ribs- Another chill on Monday.

Saw him on Thursday morning- found him lying on his back in the floor- moaning, Hurried respiration, numbering forty in the minute. Extremities cold. Chest pungently hot, Eyes injected, Sclerotic coat rather more yellow than natural. Eyes somewhat protruded from their Sockets, giving rise to a Scared or frightful expression of Countenance. He complains of a constant and acute pain in his left side, which becomes more painful when he attempts to take a full inspiration. Pulse absent from the wrist, and in fact it is extremely difficult to feel pulsation in any of

the arteries. The action of the heart is weak and very irregular, Sometimes scarcely perceptible, then so fast it cannot be counted, then again seeming to beat but once for every act of respiration. Slight cough but no sputa. Dullness at the base of both lungs, but more extensive upon the left side, a fine crepitant rale present in both lungs, heard higher up on the left side than the right, also a slight friction sound below the axilla on left side. Respiration at the summit of both lungs almost puerile. Abdomen swelled and tympanitic, emitting a clear resonant sound under percussion. Bowels have not been open since Tuesday. No abnormal sounds were noticed about the Heart, with the exception of its great irregularity.

Diagnosis. Although the absence of the rusty colored sputa and slight amount of cough might have given rise to some doubt, yet the Physical signs corresponded so exactly with those of Pneumonia, that I had none, in making out a case of double Pneumonia with Pleurisy of the left side.

Treatment. The primary indications, in the treatment of this case, are, to support his enfeebled general condition and relieve the oppressed breathing. In order to meet the former, I directed mustard plasters to be applied to his ankles and wrists, for the double purpose of acting as Stimulants and derivatives.

Internally, I gave him Brandy, and directed a tablespoonful of the following mixture to be taken every four hours:-

℞. Carb Ammonia ʒj. Sulph Quinia grs xxiv. P. Ipecac ʒß.
Aqua Purae ℥vj. M et ft mistura.

I could not meet the second indication by general venasection in account of the feebleness of his circulatory System, I endeavored therefore to relieve the engorgement of his lungs by topical bleeding. I had cups placed over the posterior part of his Thorax. For the constipation, I ordered an enema, containing ℥j Ol Ricini, to be used at once.

Some two hours afterward, I again visited him in company with the Attending Physician, who, upon examining him, confirmed the Diagnosis and the propriety of the treatment upon which he had been placed. The Cups had drawn more blood than usual. Slight pulsation at the wrist. Breathing not quite so laborious, but still much accelerated. Speaks with more ease. Seems to be improving.

Friday. Died at 8 o'Clock on preceeding evening. Post Mortem examination made fifteen hours after death. Result: Three or four ounces of yellow fluid issued from his nose and mouth, in being laid upon the table. Upon removing the Sternum & Cartilages of the ribs, the Pleura, Pericardium & Coats of the Arteries

were seen to be reddened and injected, Adhesions recent and old existed between the costal and Pulmonary pleura of the left side. also an effusion of Serum into the cavity of the pleura on the same side. The Structure of the lung itself was found to be engorged with blood, which could be easily washed or Squeezed out of it. Crepitated under pressure. No traces of Pneumonia. The walls of the left ventricle of the heart were hypertrophied, which was more or less shared in by the whole organ. Valves presented no signs of disease.

Abdomen. There was some effusion of Serum into the Peritoneum. On the Surface of the Peritoneum was effused a fibrous like fluid. seen more particularly over the liver. The Intestines were distended with gas, and slightly injected.

The result of the Autopsy points out the incorrectness of the Diagnosis. I know not whether to call it Apoplexy of the Lungs, or, Simply Hemorrhage into the Lungs.

The differential Diagnosis between the two diseases, is no easy matter, even to the most experienced Physician, unless accompanied by the expectoration of blood which, in this patient, was not the case.

The effusion was caused by an obstacle to the free passage of the blood through the heart.

Henry Flechinger, German. Aged 58. Admitted into Wards of Alms House, Aug. 17th 48. Had been working on a farm in a malarious district, on the Washington Road, five miles from Baltimore. Has had a paroxysm of Intermittent fever every day for three weeks previous to his admission, had one chill after he came into Hospital. Quinine in five grain doses was given him every two hours, commencing about eight hours before the next expected Paroxysm. It had the desired effect of putting an end to the chill. Thinking it was nothing more than a simple attack of Intermittent fever, I ceased observing him.

On Saturday night 19th, he was taken with pain in the side, cough and excessive dyspnea. Saw him early Sunday morning and found upon examination of his chest, a well defined and beautiful Crepitant rale, occupying the whole of that portion of the right Lung, below the inferior angle of the Scapula. Dullness under percussion and bronchophony with increased thrill. Respiration hurried, being thirty. Pulse soft, compressible and quick, numbering 120 in the minute. Sputa viscid tenacious, presenting that peculiar rusty color so common in Pneumonia. Pain over the Epigastrium gave him pain- pain also in his side, mouth dry, and tongue covered

with a coat of dark brown fur. Skin hotter than usual.

Diagnosis. From the preceding array of Symptoms, I had no hesitation in pronouncing it a case of Pneumonia, but of an asthenic or Typhoid form.

Treatment. The man's debility was so great, I was afraid to resort to general blood letting, therefore directed Six Cups to be applied to base of right lung. over the inflamed part; and ordered for him internally

℞. Tart Antim et Potass grs iv Aqua Fontana ℥viij m

ft Solutio. Tables poonful every two hours. With directions to lessen the dose if it produced emesis.

At Night. Appears to be somewhat easier. The Antimony had vomited him severely, Stopped it and gave him grs ij Ipecac hourly, Quinine grs v 3 times a day.

Monday 21st The attending Physician, Dr. B. saw him and diagnosed from the following Symptoms:

Typhoid Fever with intercurrent Pneumonia.

In addition to the symptoms enumerated above he complained when asked (and I must say he answered 'Yes' to every question asked him) of Swimming in the head when he sat up. ringing in the ears. Had one or two liquid evacuations during the day, but no tenderness over the Iliac regions. Some gurgling

There were also some little Spots upon his Shoulders and back, which Dr B. Supposed to be the Lenticular Spots of Typhoid fever. His pulse had fallen to 74. fuller and harder than on preceding day. Dr. B. continued his Quinine, and gave, instead of his Ipecac, the following combination:
℞ Carb Ammonia gr xviij Ipecac gr iij Aquæ ℥iij ℞ Tablespoonful 3 hours.
Diet. Coffee for Breakfast and Beef tea for Dinner.
Tuesday. Symptoms all much the same as yesterday. The Inflammation extends somewhat higher up the Lung, without aggravating his general condition. Failed to discover any Rose spots. Stool no tenderness. Evacuations the same. Stomach rejects the Ipecac- decreased the dose one half and gave it every 2 hours. Also directed a wineglassful of the Infus of Serpentaria et Chattany to be taken every three hours.
Wednesday. Is much better. Tolerates the Ipecac- four more Cups.
Friday. Did not see him on Thursday. Was surprised to find him sitting up in bed, and reading- greeted me with a Smile and declared himself "much better." His countenance is much more intelligent. Respiration natural. Pulse normal, but rather weaker than in health. Upon Examining Chest dullness disappearing. The Crepitation though Still present, Seems to have a clearer Sound, as if that of

returning health. Cough and expectoration less. Sputa losing its Pneumonic characters, looking more Bronchitic. He complains of thirst and slight pain in his breast. Gave him some Ice, and continued his other treatment.

Saturday. Says he is well, and wants to walk out. but deem it prudent to keep him in the House a few days longer.

How are we to account for this inflammation of the lung? The man was exposed to none of its exciting causes- the Hospitals are kept comfortably warmed and well ventilated. He had been in three or four days, before he was attacked with Pneumonia, not being allowed in the mean time to go out. He was not exposed to any alternations of heat and cold. This being the case, we must account for it in some other way. We cannot trace the disease to external circumstances, we must therefore look within the man for some cause capable of producing inflammation.

The blood which leaves the capillaries becomes congested in the viscera. We find him weak, debilitated, anemic and depressed- his whole System in an atonic condition- his nervous System unable to impart contractile power sufficient to the heart, Arteries and Capillaries to keep

the blood in circulation. Under this State of things, might not congestion of his lung have happened during the chill, which he had after he came into the Hospital, and acting there as a Source of irritation, have produced the inflammation which So plainly declared itself on the night of Saturday 20th. I think So. at least no other plausible mode of accounting for it, presents itself to my mind.

For the typhoid Form and Symptoms, which were present, we have only to look at the debility, the anomia, the atony of the nervous and vascular Systems, which a three weeks attack of Intermittent Fever would cause in the Stoutest and most healthy man.

For the Diagnosis of Typhoid fever, the result of the case proves it incorrect, as Dr. B. himself admits.

On Monday, the ninth day Since his attack, treatment was stopped. His clothes and liberty of the yard given him, the weather being fine. Cupilant Rale still remaining. -

Andrew Gray, German. Aged 27. Entered Hospital Aug. 23d '48.
Butcher by trade - unable to Speak English. Learned through an
interpreter, that he had been Sick five days - was a hard working
man and had retired to Sleep in an out-house after a hard days
labor, where the wind played freely over his Surface. Says, he
caught Cold and had a chill that night; the next morning
he was very thirsty and had a pain in his back with headache
but he nevertheless worked the next day and continued to do
So, until he was forced to quit from weakness. On the morning
of the 23d, he was unable to rise from his bed. on that day was brot
to the Alms House in a Furniture wagon. Saw him in the evening.
Found him lying on his back. indisposed to move or Speak.
Pulse Soft and compressible, 100 in the minute - Skin moderately
hot and dry. Tongue dry and Slightly coated, Sticking to his
teeth and lips when he attempts to protrude. Says, he cannot
hear So well as he used to. Pupils dilated. Has tenderness
over the Epigastrium and right Iliac region. Abdomen tympan-
itic. Some gurgling. Has one thin Stool daily - Swimming
in the head, ringing in the ears. Thirst and loss of appetite.
Has slight Cough but can detect no abnormal Sounds about
his lungs. He is Slow to answer questions, requiring Some time as it
were, to appreciate them. Mind Seems to be clouded.

Diagnosis. The Symptoms present, leave no room to doubt his having Typhoid Fever.

Thursday 24. Was delirious during the night- wandering about the room- pulling the bed clothes from off the other patients and refusing to go back to his own bed, saying Some one else was in it. Is more rational this morning- complains of thirst and weakness- Ordered for him plenty of Ice and gave him three grains of Sulph Quinine three times a day. Diet. Coffee for Breakfast- Beef tea for dinner, and Toast water as a diluent drink.

Friday. Is much weaker, Slides down in his bed, Countenance dull, heavy and Stupid- cannot comprehend the questions put to him- mutters out replies having no relation to the questions. Mouth dry and Parched- Tongue coated- teeth and lips covered with Sordes. Subsultus tendinum. great irritability of the muscles. Bowels not opened since Thursday morning. directed a mild Injection, and gr x Carb Ammonia, to be added to his Quinine every three hours. Also ℥j Brandy daily.

Saturday. Passed the first part of the night in Sleep, but toward morning in attempting to rise from his bed, he fell upon the floor and was unable to get up again. Intelligence much clearer. Says he feels better, Bowels not been opened for 24 hours.

℥ij Rochelles Salts were administered. Stopped his Carb Ammonia
Dr. B. thinks it exerts an Anti-plastic effect upon the blood.
retarding convalescence, by depriving it of a great part of its
fibrine. Sensitiveness over right Iliac region less acute. examined
carefully for the Rose Colowred Spots. but could find none.
this being the eighth day. continued the Quinine in three grain
doses every four hours. Ten grains Pulv Doveri at night.
Sunday 9th day. Slept better. Rochelle had no effect. Intellect
again clouded. Still no Rose Spots. but I noticed a small crop
of Sudamina about the neck and upper part of the Sternum.
Directed the Injection to be repeated. Tenderness over iliac
entirely gone
Monday. The Injection produced three watery and copious evacuations
after which he appeared much better. Muscular soreness extreme.
A pinch or pressure on any part of his body followed by a
corresponding elevation of the muscular fibres. Bowels not
opened since the action of the Injection. Mind Still torpid.
Seems to take no interest in what is passing around him.
Gave ℥ij Rochelle Salts.
Tuesday. Seems much better this morning. less confusion of
mind. Rochelle operated three times. walked unaided to the
chair. Carefully examined his whole Surface and failed to.

discover anything approaching to a Rose Coloured Spot.

Thursday. In a fit of delirium last night, he attempted to climb out of the window. Had to confine him. This morning Sent him to the Cells. delirium continues. tears up his bed, constantly muttering. Picking at objects in the air.

No Subsultus.

Friday. More rational, complains of the confinement and Straight jacket. Seems to have regained his Strength. Stopped his Quinine and Brandy. And ordered ℥j Rochelle Salts. Together with Acet Tinct Opii gtt x to be taken at night.

Saturday. Slept the whole night. His former weakness and all his Symptoms Seem to have disappeared as if by magic.

Sunday. Says, he is well and wishes to walk out in the open air.

Monday. 17th day. Gave him his clothes and liberty of Yard.

Henry Seling. German. Aged 28. Entered Hospital Septem-
ber 5th 1848. Has been labouring on a Farm, and Sick twelve
days. From his own account (upon which not much reliance
can be placed) he has had a chill every day since he
was taken Sick. From the examination made of him upon
his entery. there was found, in addition to his Intirmittent
Pain in his head back and limbs. Swimming in his head,
ringing in his ears. Tongue red on edges and in centre
with intermediate Streaks of yellow fur. Pain upon pressure
over right Iliac region and Epigastrium. Partial loss of
appetite. great muscular Sensibility, and irritability.
Dull, Stolid expression of countenance, or rather a loss
of all expression. Pungent heat of Skin. Pulse small and
weak, 88 in the minute. Tympanites and gurgling. One thin
Stool each day. Extreme weakness. Falls over when he attempts
to Sit up. Subsultus tendinum. Some few rose colored Spots
on his lower extremities, none on the Body.

Diagnosis.

Typhoid Fever.

Treatment.

Was put upon the usual diet of the House, Coffee, Beef tea &c.
in Cases of fever. Quinine in five grain doses, as also Brandy.

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Thursday. The Quinine has prevented the recurrence of his chills. Dr. P., who saw him to-day, doubts the identity of the spots with the characteristic eruption of Typhoid fever, but confirms the Diagnosis. General condition much the same, continued the same treatment.

Friday. In addition to his other symptoms, he has this morning Hiccough. 1 Stool yesterday. Dr. B. ordered for him a fomentation, consisting of Cloves steeped in Brandy, applied over abdomen, also one of the following Pills every four hours to arrest the hiccup: R. Ext Belladonna grs ij Gum Camphor grs x. m ft pil no x.

Saturday. Hiccough not relieved, but appears to be livelier. No ringing in the ears. tongue clean but red. improving in strength. R. Infus Serpentaria. S. Wineglass ful three times a day also Musk in five grain doses three times a day.

Monday. No Hiccough. Pulse 68. Skin moister and of a more healthy temperature. Slightly whitish coat at base of tongue. No thirst. Nervous Symptoms all mitigated, Countenance clearer and brighter. Is very much improved since Saturday. Complains of itching in his legs. Appetite improving. Same treatment continued.

Wednesday. Is convalescent. Stools assuming a more healthy appearance and greater consistence. Treatment Stopped, with

the exception of his Quinine, which is decreased in quantity

Wants his clothes Says "he feels good"

Friday.

Gave him his clothes and allowed him to exercise in Yard.

There is nothing remarkable in this case except (like the preceding one) the absence of the Rose colored lenticular spots. Those noticed upon the extremities being most probably, as Dr P. supposed, nothing more than the bites of Bed Bugs. Though they resembled the spots of Typhoid fever so closely as to have deceived some experienced observers.

Wm Schlanty, German Aged 31. Entered Wards of Alms House, August 25 1848. Has been in America nine months. Cannot Speak English. Black-Smith by trade. Been sick three weeks: taken with a Sensation of coldness not amounting to a chill, followed by fever which has continued ever since. To-day he appears much prostrated, probably the more from the rough jolting he received in being brought to the Alms House, in the Conveyance destined for the use of Paupers. Maintains one position in bed seemingly without any desire to change it. Has constant thirst, no appetite. Excessive tenderness over the right Iliac region, more or less shared in by the abdomen. which is bowelled and tympanitic. Tongue is dry, brown in the centre and red on the edges. Sordes about the teeth and lips. Pulse irregular, beating from 114 to 132 in the minute. An Eruption of Indamina covering the whole anterior Surface of neck, chest and abdomen, Some of them measuring one fourth of an inch in diameter. also a rash, with dose Colo spots interspersed here and there over the Surface of Belly and back. requiring Some care to detect them. He has no Swimming in the head, or ringing in the ears. Sleeps well at night.

The nervous symptoms seem to be less clearly marked than usual in cases of Typhoid fever. Bowels open twice in the Twenty four hours, Thin and watery. Was put upon no treatment until Thursday. 26th. When Dr. B. saw him and ordered an Infusion made, from the following ingredients and a wineglassful to be taken every three hours: R. Rad Serpentariae et Krameriae āā ℥j Aqua Oij. ft Infusio - Coffee, Beefteas & Toast Water -

Friday. Is weaker this morning, more inclined to slip down in his bed. Hands cold and not the feet. Ordered Coz Brandy during the day. Four or five Stools since yesterday.

Saturday. I have failed to mention in this case a profuse perspiration, which I have noticed upon him ever since his entry. Is more prostrated to-day than yesterday. Troubled very much with Hiccough. Face flushed and red, Discover nothing about his chest wrong - Breathing a little hurried by the pressure upward of the diaphragm, arising from the presence of so much gas in his intestines. Thirty drops of the spts. Turpentine was directed for him every three hours. and the abdomen to be covered with a fomentation of cloves and Brandy. The Brandy for internal use was ordered daily -

Sunday. Condition same, sweats alternating with flushes of heat.

Monday. Hiccough still troubling him, Sweats as on preceding days. Dr. B. ordered him One grain of Musk every 4 hours. and ten drops Aromat Sulphuric Acid three times a day, and his Surface to be rubbed with Salt and Whiskey, for the purpose of inducing a new action in the Capillaries. Seems Evidently Sinking.

Tuesday. Debility increasing. passes his Stool involuntarily Sweats more profusely. Complains of the weight of the Clove fomentation. Sleepless. Hiccough uncontrolled, food not digested, passes through him nearly unchanged. Ordered an Enema of ℥vj Mucc Amyli. Tinct Opii ℈ xl m.

Wednesday. The Injection was repeated and failed to exert any effect upon his bowels, Belley acutely sensitive to pressure. Has a pinched and anxious expression of Countenance. Suspect perforation and Peritonitis, but too far gone for the employment of remedies.

Thursday.

Died at 10 o'Clock last Evening.

Body examined fourteen hours after death

Result on next page.

On examination, the following lesions were presented.
The Omentum, Peritoneum and intestines were of a blackish red color. Some effusion of Lymph binding down the Omentum to the intestines, and effusion of Serum to a slight extent into the cavity of the Peritoneum. That part of the Liver over which the Peritoneum is reflected, was of a dark Slate color, the cut Surface and that part not in contact with the Serous Membrane was unaltered in color. Spleen natural Size, Slightly discolored. Stomach distended with fluid and gas. Mucous Membrane thickened, Softened, mammellonated and discolored. Intestines distended with Air. Peyer's patches numbering forty were prominent than usual Ten altered and ulcerated, Some of them appearing as if the process of reparation had been Set up; Some ulcerated as far through as the Serous coat. In the Patch nearest the Ileo cæcal valve, the ulceration had extended through all the coats, making a perforation near the Size of half a dollar and had discharged part of the Fæcal contents of the intestines into the cavity of the Peritoneum, giving rise to the Peritonitis, which carried him off.
The Mesenteric glands not so much altered as might be expected, Some of them were slightly enlarged, reddened

and softened. The Isolated glands generally were enlarged and reddened. All the reflections of the Peritoneum were very much reddened, softened and easily torn.
Heart flabby, without fibrinous clots, Slight clots of black blood, the greater part of the contents consisted of dark, thin, black fluid blood. Lungs apparently healthy, crepitating under pressure and diminishing in bulk, slightly discoloured by the blood soaking or gravitating downwards through their substance. Bronchial tubes not examined.

An
Inaugural Dissertation
On
Typhoid Fever
Submitted to the Examination
Of the
Provost, Regents,
And Faculty of Physic
Of the
University of Maryland
For
The Degree of
Doctor of Medicine
By
Reuben E. Jones
Of
Baltimore County Maryland
1849

To

Dr. Power,

Professor of Theory and Practice

In the University of Maryland

And To

Dr. Chew

Professor of Materia Medica & Therapeutics

In the same Institution

As

A mark of Esteem

For the many favours received

This Essay

Is humbly inscribed

By

The Author

Typhoid Fever

Typhoid Fever may be defined to be an acute febrile disease very insidious in its mode of attack and attended with great muscular prostration, Epistaxis, various derangements of the cerebral functions, disorder of the stomach and bowels, frequent pulse generally one hundred beats in the minute, Diarrhoea, Tympanites, Spasmodic twitching of the muscles and various other symptoms, and is distinguished from all other febrile diseases by a peculiar anatomical lesion in the small Intestines and Mesenteric glands and the appearence upon the surface of a rosy lenticular eruption. It occurs most frequently between the ages of fifteen and thirty years and rarely happens beyond the fortieth year of life.

The limits of this brief essay will not permit me to say anything concerning the history of Typhoid Fever, a subject more extensive and complicated perhaps than any other in the whole

domain of medical science. This is one of the most generally prevailing febrile diseases to which mankind is subject, being confined to no particular climate, section of country or class of society; but occurring in hot as well as in cold countries, upon high mountains as well as in deep valleies and in all lofes and conditions of life. Indeed the great probability is that it occurs wherever human beings dwell, it being confined to no part, but belonging alike to the whole human family. It is true that in malarious districts it does not occur as frequently as in other places, yet it also seems true that it is often blended with the malarious fevers giving to them the peculiar and distinctive character of Typhoid fever. The fact then that this is a grave disease assuming so many varieties of forms, makes it one of the most important diseases the physician is called to treat.

The disease has been described by different authors and at various times under a great variety of

names showing clearly that the nature of the disease was not well understood. Typhoid fever the name given to it by Louis is the name by which it is at present generally known both in Europe and this country. It was named by Petit and Serres Entero-Mesenteric fever, by Bretonneau Dothenteritis, by Bouillaud and others Follicular Enteritis, by Bouillaud Typhoid Entero-Mesenteritis, by the Germans Abdominal Typhus and Gastric nervous fever, by Cullen Synochus, by the older writers Typhus mitior, and by Dr. Wood of Philadelphia it has been named Enteric fever.

The symptomatology of this disease is various and characteristic. It generally commences with certain prodromic symptoms which mark its approach, such as a feeling of discomfort great uneasiness, a sense of weariness, soreness of the muscles, great prostration, frightful dreams, gloomy forebodings, and apathy of the mind. The face is somewhat flushed, the skin

slightly heated, and the pulse accelerated. The tongue is covered with a thin whitish fur, the appetite is impaired or lost, and there is sometimes nausea, but seldom any vomiting; there are in some cases chills attending, with flushes of heat, and sometimes there are distinct rigors. Diarrhoea is an almost constant attendant upon the early stage of this disease, being present in almost cases. Epistaxis is also a characteristic sign of Typhoid fever. These symptoms go on gradually increasing for several days, showing at the same time a tendency to daily remissions, until the patient, unable any longer to perform his accustomed avocations is at length, compelled to take to his bed, although he cannot say that he is really sick. Indeed the attack in many cases comes on so insidiously that it is impossible for the patient to fix the precise time of its commencement. The aspect of the patient is now truly characteristic. The face is of a peculiar dusky hue, the eyes are dull and heavy, and the expression

of the countenance is obtuse; the eye seems to have lost its brilliancy, and the whole countenance is more or less attered. There is a feeling of great prostration, the muscular power seeming to be entirely lost. There is a bitter taste in the mouth, the tongue is slimy or covered with a thin white fur, and is red along the edges and at the tip; there is nausea sometimes vomiting, slight Colicky pains in the abdomen with tenderness and gurgling in the right Iliac fossa. The nervous symptoms become more manifest. Headache is an almost constant symptom of this stage of the disease, and sometimes there is Delirium especially at night. There is a feeling of dizziness, especially when the patient sets up, accompanied with ringing or buzzing in the ears, and sometimes there is dulness of hearing. The skin is hot and dry, the thirst greatly increased and the pulse accelerated, generally over one hundred beats in the minute, which is small after the first twenty four or forty eight hours. About the fourth day

a dry cough sets in, attended with the expectoration of a small quantity of tenacious frothy sputa and the physical signs detect the subcrepitant and Dibilant Ronchi and the other signs of Pneumonia. If the surface be carefully examined a peculiar lenticular Rose coloured eruption will be discovered generally confined to the Abdomen and breast and disappearing upon pressure. The time of its occurrence is most generally from the seventh to the twelfth day of the disease and the whole period of the eruption varies from three to fifteen days. As the disease advances other symptoms are superadded. Dilirium sets in on the subsidence of the headache and is most marked at night or soon after the patient awakes from sleep. It is generally of the kind to which the term low and muttering has been applied. In some cases it sets in early in the disease and continues until its decline. Subsultus tendinum and twitching of the muscles become more and more marked. The tongue becomes dry, red and glossy, and is

prostrated with difficulty and is observed to tremble in the effort. The prostration increases, the pulse grows more frequent and feeble, and the abdomen becomes enormously distended with flatus, sometimes so much so as to present a convex arch from the Hiphoid cartilage to the pubes. A close inspection of the surface will now detect the presence of a great number of minute vesicles, transparent and about the size of hemp seed. They are called sudamina and from their minuteness and transparency often require to be viewed obliquely in order to be seen. Their most frequent period of appearance is from the eighteenth to the twentieth day of the disease.

If the disease continues it at length takes on a completely typhous condition. The debility becomes still more strongly marked. The patient lies upon his back, slips unconsciously down in his bed, mutters low half formed sentences, and not unfrequently his feces are involuntarily discharged; the pulse

becomes small and almost imperceptible, the tongue, teeth and gums are covered with a brown or black sordes, and a peculiar musty odor is exhaled from the body. In some cases profuse hemorage takes place from the nose and bowels, and not unfrequently petechiae and vibices form upon the skin. The vitality in the skin is so low that blistered surfaces slough, and large eschars form over the sacrum and other parts exposed to continued pressure. Sometimes these eschars, by poisoning the blood, are sufficient to cause the patient's death. In some cases perforation of the bowels takes place giving rise to dangerous and even fatal Peritonitis, and this result happens more frequently in mild than in severe cases. Death from this accident most usually takes place from the first to the third day after the occurrence of the accident. This disease is subject to a great many complications, and occasionly there are relapses of the disease, which are generally fatal.

The anatomical lesions in Typhoid fever are various and profound, more so perhaps than in any known disease. The pathological anatomy corresponds in complexity, variety and extent to the symptomatology. During the course of this disease inflammation may be established in almost any organ of the human body, and post-mortem examinations have verified the truth of this statement, for the Brain, Lungs, Heart, Liver, Spleen, and Stomach have all been found to present the traces of inflammation. The softening which is so commonly met with in this disease is not the result of inflammation, but of a poisoned state of the blood giving rise to congestion in the different organs. These lesions are met with in other diseases beside Typhoid fever and cannot therefore be considered as peculiar to this disease. But there are certain lesions which are constant and invariable and to be met with in no other disease and are therefore considered as perfectly pathognomonic of this disease.

Of such is the affection of Pyers glands and of the mesenteric glands. Indeed this lesion seems to be almost an essential to the disease and without it we cannot determine with certainty as to the character of the disease. It is to these lesions which I intend principally confining my remarks in this Essay. The lesion of Pyers glands is invariable and characteristic. Their condition varies with the duration of the disease, with the distance of the plates themselves from the Ileo-Coecal valve, and with various other circumstances the nature of which is not well known. As to the condition of these bodies in the earliest stage of the disease little is known. They have however been examined in every stage of the disease after the sixth day. At first the plates are observed to be merely thickened and reddened, having their surface elevated two or three lines above the mucous membrane surrounding them. Those which are situated nearest the Ileo-Coecal valve are always most affected and are found less and

less so the higher they are situated above this point. Some of these glands in their enlarged state are an inch or two long by half an inch to an inch broad, the long diameter of which alw=ays runs lengthwise with the intestine. Some=times they are found of a considerably smaller size, and of a more circular form. Their edges are generally smooth and well defined; but in a few instances may be found with their edges irregular and ragged. The surface of these thick=ened plates frequently present a granular or finely mamelonated appearance. This appearance becomes manifest when they are detached and held be=tween the eye and the light. At other times the surface of the membrane over the paches is quite smooth. The number of plates thus enlarged is very various, ranging from two or three up to thirty or forty, averaging about twelve or fifteen.

In the great majority of cases these glands instead of being merely thickned and softened are the seat of extensive ulceration. These ulcers

vary in extent in proportion to their distance from the Valve of the small intestines, being always most extensive near the termination of the Ileum. The base of the ulcers may be either the sub=mucous celular tissue, the muscular coat or the Peritoneal coat. Sometimes through the proces of ulceration or sloughing of the Peritoneal coat perforation of the intestine takes place and the liquid contents are discharged into the cavity of the Peritoneum, giving rise to that dangerous and even fatal form of Peritonitis. The extent of the perforation is generally small, not exceeding a line or two in diameter. Louis found this acci=dent in about one seventh of the fatal cases examined by him. It generally takes place at a late period of the disease, and it is a singular fact that it occurs almost exclusively in cases of little severity. Perforation is not necessarily fa=tal, for we have reason to believe that cases in which this accident has taken place have terminated in complete recovery.

The Mesenteric are found more or less changed, varying however according to their position, and the period at which the disease has terminated. When death takes place before the third week, they are found increased in volume, diminished in consistence, and of a redder colour than natural. Later in the disease their volume is more natural, and instead of being red or rosy, are either grey or violet. The affected glands corresponds to those in the small intestine always being most deeply affected near the Ileo-Coecal valve. The Spleen is generally found greatly enlarged, and so much softened that it breaks down like a pulp between the fingers, and in many instances resembles a clot of blood more that it does a Spleen. This condition of the Spleen is not confined to Typhoid fever alone; but is frequently met with in other febrile affections, especially Pernicious Intermittent and Remittent fevers. Beside these lesions numerous others are observed; but they

are not peculiar to Typhoid fever, and will therefore be passed over without a discription.

As to the causes which give rise to Typhoid fever very little is known, as is the case with all essential fevers. The disease is evidently contagious in a great many instances. Dr. Nathan Smith considered it as truly so as Small Pox, and adduces a number of cases in proof of this. Although we must admit that the disease is contagious under certain circumstances; yet we cannot consider it as strongly so since it is not communicated with much facility. One attack of the disease insures a person against a second attack, and in this it follows the general law of contagious fevers. Some eminent authors state that they have never known the disease to occur twice in the same individual. It occurs both in a sporadic and Epidemic form. Single isolated cases are not uncommon. Sometimes it occurs over a wide range of country constituting an Epidemic of the disease, and is often

observed to be migratory in its character. The influ=
=ence of age in the production of this disease is very
striking. The age at which it is most frequent is
from the fifteenth to the thirtieth, and as before
observed is exceedingly rare after the fortieth year
of life. Recency of residence in a place has also
some influence in the production of the disease.
It is apt to happen to young persons going from
the country into large cities.

The Diagnosis of Typhoid fever in well marked
cases is easily and certainly made out. The slow and
insidious mode of attack; the obtuseness and dusk=
=iness of countenance; the great prostration, sore=
=ness in the limbs, pain in the back, headache
and delirium, the diarrhoea, tendency to Epis=
=taxis, and about the fourth day the supervention
of symptoms of Bronchitis; later in the disease
the occurrence of Ataxic symptoms; the rosy spots
the abdomina, the dry tongue, sordes upon the tee=
=th and gums; the low and muttering delirium,
meteorism and tympanites are symptoms

altogether unlike those of any other known disease. After death the diagnosis is confirmed by the peculiar lesion of Peyers glands and Mesenteric glands, and the enlargement and softening of the Spleen. The disease with which Typhoid fever is most likely to be confounded are Typhus fever, Bilious Remittent fever, and certain forms of the inflammation of the membranes of the Brain. Typhus may be distinguished by its more abrupt mode of attack, shorter duration, constipation instead of diarrhoea, and the dark colour of the evacuations, those of Typhoid fever being yellowish. In Typhus there is never any meteorism, and rarely any tympanites. The eruption is also different, being much more abundant, darker coloured, and much less affected by pressure. Peyers glands are always found unaffected in Typhus fever. Bilious fever will readily be distinguished by the bilious vomiting, yellowness of the skin, by its shorter duration and tendency to end in the bilio-

=mittent form, and by the absence of the char=
=acteristic symptoms of Typhoid fever. Inflam=
=mation of the membranes of the brain may gen=
=erally be distinguished without much difficulty.

Typhoid fever must be looked upon as a grave disease, and in some Epidemics is exceedingly fatal. The prognosis will depend upon a variety of circumstances. The prognosis must be looked upon as unfavourable, when the disease is abrupt in its mode of attack; when the febrile symptoms run high, the pulse over 120 or 130 beats in the minute, and the respiration hissing; when the delirium occurs early and is wild and furious, when there is much spasmodic twitching of the muscles, with an anxious or cadaveric countenance; when there is great dysphagia, urgent diarrhoea, involuntary evacuation of the feces, great distention of the bowels, retention of urine, and hemorrage from the bowels. Erysipelas generally occurs in grave cases and is almost uniformly a fatal complicati=

It is said to be more fatal in cold than it is in warm weather. The age at which it occurs should guide us somewhat in our prognosis. It is less frequently fatal between the ages of fifteen and twenty than at any other period of life. The mortality of the disease is perhaps about one in four when it occurs under four years of age; from ten to twenty it is rarely fatal and from twenty to forty about one in eighteen ten.

The views in regard to the nature of Typhoid fever are unsettled and devers[illegible]fied. The most probable opinion is that the disease in its nature is specific, the disease of the intestinal follicles being a sort of internal eruption like that of small Pox upon the skin, and is merely a characteristic attendant upon the disease. A proof of the specific nature of the disease is, that the affection of Peyers glands cannot be produced by the ordinary causes of inflamation neither can it be relieved by the ordinary remedies for subduing inflamatory action. The blood

is also vitiated and altered and does not coag=
=ulate as healthy blood or the blood in frank
inflamation. The salts in the blood are
diminished in quantity.

Treatment. It is of the highest importance
in treating a case of Typhoid fever to remember
the very important fact that the disease is
specific in its nature, and will necessarily
run its own course. There has as yet been no sp=
=ecific for the disease discovered, nor has there
been any absolute treatment fixed upon. The
most that we can do is to watch the disease
carefully, and treat any complications that may
arise, and thus conduct the disease to a happy
issue. Our treatment must alway be regula=
=ted by the strength of the patient and the
type of the fever. Thus when the debility is
great we must support the strength by tonics
and stimulents. When the fever is high and
sthenic we must moderate this by appropri=
=ate means. Indeed it seems safest and best

in the present state of our knowledge to treat the disease upon a rational and Eclectic plan, not depending upon any absolute mode of treatment. In regard to the propriety of bloodletting in this disease, different views are entertained; some recomending the free and copious abstraction of blood in almost all cases; while others condemn it as being injurious in all cases however sthenic the fever. But the truth is, neither the one nor the other is founded upon correct principles, and so far as our knowledge extends a middle course seems the safest and best. In true Typhoid fever of an inflammatory type venesection is proper especially in the early stage. During the first twenty four or forty eight hours if the febrile symptoms are high the pulse full and strong and the pain in the head intense, the bleeding may be carried to the extent of 16 or 20 ounces and in some rare cases it will be necessary to repeat the operation once or twice. But it should always be conducted with the greatest

caution lest we carry our depletion too far, for the bleeding will not cure the disease, and it is best to husband as much of the strength as possible for the future struggle. It is also important to bear in mind that some Epidemics of the disease will not bear depletion in any manner, while in others it will bear it comparatively well. This remedy is wholly uncalled for, in the great majority of cases, and in no case should it be resorted to after the forth or fifth day unless in cases where severe local inflammation arises. Local bleeding is of the high=est utility in this disease, as it can be resorted to at almost any stage of the disease, should local in=flammation supervene, unless forbidden by symp=toms of great adynamia. As a means of local depletion leeches are decidedly better than cupsunless in cases where Pneumonia arises. When there is much Cerebral excitement a few leeches may be applied to the temple or back of the neck, and where there is abdominal tenderness they must be applied to the seat of the tenderness.

In the early stage of the disease it is of the high-
=est importance to enjoin an abstemious diet and this
in severe cases should be carried almost to starvation.
The patient should be restricted to a farinaceous
and liquid diet, and should not be allowed solid
food of any kind either animal or vegitable.
We may allow Tapioca Sago arrow root solution of
Gum Arabic &c. In the advanced stage we must
allow a more nutritious diet and one which is ea-
=sily digested. If there has not been considerable
diarhoea we should evacuate the bowels by some
mild cathartic as Sulphate of Magnesia Rochelle
salts, Castor Oil or some other mild cathartic and
afterwards give an occasional laxative throughout
its whole course of the disease if called for. If the
stools exceed five or six a day we may give flax-
=seed tea or Gum water and Laudanum so as to
check the diarhoea. In cases where the skin is
hot and dry we may give small doses of Neutral
Mixture to which minute doses of Tartar Emetic
may be added when the stomach is retentive and

the bowels not much irritated. Non purgative salts are of the highest utility in all cases the disease. Of these Bicarbonate of Soda and Chlorate of Potash are the best. One drachm of each dissolved in a pint of water may be given the patient as freely as he may desire it. This has a wonderful effect in allaying the thirst and dryness of the mouth. Cold water or ice and water may be used with advantage both externally and internally. When the skin is hot and dry we may expect the greatest benefit from sponging the surface or cold ablution. The patient may be allowed ice and cold drinks throughout the whole course of the disease. When symptoms of debility come on we must resort to tonics and stimulents, but these must not be used too early nor given to too great extent. In mild cases sulphate of Quinine will be sufficient but when the prostration is great we must resort to Carbonate of Ammonia Terpentine Wine &c. Various symptoms and complications require separate treatment. These it will be necessary to notice briefly.

Pneumonia coming on during the course of Typhoid fever is a grave complication, and requires immediate interference. If the strength of the patient will permit we should apply cups freely over the affected part, and if we think the system will not bear this we should resort to dry cupping, and immediately administer Calomel and Opium so as to affect the system as speedily as posible, and the mercurial impression should be kept up slightly till the disease gives way. When there is much mucous indigestion, we may give an Emetic of Ipecacuhana followed by a pretty active cathartic. This will generally succeed in giving relief. One of the best means of removing the Symptoms of metorism is a saturated solution of common salt given cold and in doses of a teaspoon full repeated at intervals.

In obstinate cases where the tongue remains dry and the abdominal distention undiminished. Dr. Wood speaks in the highest terms of Oil of Turpentine in doses of from five to twenty drops every hour or two.

In cases of perforation of the intestines our only hope is in the administration of large doses of Opium as recommended by Graves and Stokes, and the observance of perfect rest. The patient should be kept in the horizontal position and should be confined to the strictest regimen. There are cases on record which have recovered under this mode of treatment.

Epistaxis is occasionly so profuse as to require our interference. If it is not relieved by the ordinary means we should resort to plugging the Nares both anteriorly and posteriorly. Intestinal hemorage require our prompt and energetic interference. It is best checked by Acetate of lead and Opium in doses of grains five of the former and half a grain of the latter every two to four hours according to the urgency of the case. Or we may give Ammoniated tincture of Iron or vegitable astringents for the same purpose. The Delirium is sometime greatly benefited by giving Castor Emetic and Morphia. Erysipelas is a dangerous complication especially in the latter stage of the disease. It should be treated by local

applications of Tinct. of Iodine or Nitrate of silver or simply by mucilaginous applications. In cases where the Ataxic symptoms are prominent some recommend antispasmodics as Musk, Assafoetida Camphor &c. These seldom do much good, and the case requires to be treated by remedies addressed to the general state of the system.

The state of the patients Bladder should be carefully examined into daily, and if Retention of urine should be found to have taken place, the urine must immediately drawn off by the Catheter. Much mischief has frequently resulted from this cause alone.

An
Inaugural Dissertation
on
Acute Laryngitis
Submitted to the Provost, Regents
and
Faculty of Physic
of the
University of Maryland
For the degree
of
Doctor of Medicine
by
Richard T. Gough
of
Maryland
Feb. 1849

By laryngitis is meant inflammation of the larynx. The danger which is always to be apprehended in this disease is, that the inflammation may so narrow the rima glottidis as to suffocate the patient. The history of this disease does not go beyond the beginning of the present century, when, it is said, that Monro, Cheyne and others called the attention of the Profession to it. Several distinguished men have died of this disease and among them was the illustrious Washington whose case, it is said, was the first that has been recorded. It is this disease which English Practitioners consider so formidable, although the patient can be relieved of the most distressing symptom by the skill of the Surgeon.

The disease usually commences with a chill followed by fever with a full strong pulse, a hot skin and flushed face. There is also some soreness of the throat and hoarseness of voice. If the patient be examined when he is first attacked, the uvula, tonsils and soft palate will appear redder than natural and in some few cases, exudations of coagulable lymph will be seen on those parts; and sometimes the tongue will be found swolen. The inspiration is prolonged and audible, as if the air were drawn through a dry, narrow reed; the patient, if asked, where the seat of the disease, is points to the larynx; he frequently coughs and it has a peculiar, harsh and stridulous sound and is attended with a scanty, viscid and transparent expectoration.

The patient will sometimes complain of pain in the chest. The voice is also affected; at first being acute and piping, it gradullay becomes thick, then whispering and finally entirely suppressed. The act of deglutition is almost always difficult in consequence of the swolen state of the glottis: the epiglottis is sometimes swolen and may be seen, by depressing the patient's tongue with a spatula and getting him to cough at the same time, erect and looking like a plum. In consequence of this swolen state of the epiglottis, it frequently happens, that, when the patient drinks, a portion of the liquid gets into the larynx and brings on a paroxysm of suffocating cough. From the laborious respiration and insufficient supply of air the

appearance of the patient soon becomes affected. His expression becomes anxious; his countenance pale; his lips livid; his eyes protuding and watery; his pulse quicker, feebler and more irregular; and the surface of the body becomes colder. Sometimes the integuments surrounding the larynx, especially those in front, become swollen. The patient is restless and apprehensive, frequently changing his position in order to obtain relief; rising from his bed and walking about the room and begging that the windows may be opened that he may get more air. Feeling he is on the point of suffocation, the patient is willing to submit to any operation which may give him relief. In this stage of the disease, the patient seldom sleeps

more than a few moments at a time; when he begins to doze, he starts up in great agitation, gasping for breath and bringing every muscle into action which can aid him in respiring. He is quite enfeebled, becomes delerious, drowsy and at last, comatose; the circulation becoming more feeble, the patient perishes on the fourth or fifth day of the disease and sometimes earlier. Instances have been known in which the disease has terminated in twelve hours and one as early as seven; in another it lasted for three or four weeks. The causes of laryngitis are exposure to cold and moisture combined. It more frequently occurs in the old and intemperate and in those persons who suffer from indigestion connected with a disordered state of the liver.

It is sometimes brought on by a continued and violent exertion of the voice; by swallowing accidentally scalding water, or corrosive liquids; by inhaling hot air when exposed to fires; by inspiring, corrosive or irritating gasses, vapours or powders; by the unskillful introduction of instruments; and by external violence. In tonsillitis the inflammation sometimes extends to the larynx. It occasionally occurs in mercurial stomatitis. Erysipelas and the sore-throat of scarlet fever occasionally prove fatal by the inflammation extending to the larynx. Measels, catarrh and small-pox sometimes produce it. Occasionally it is the result of typhoid fever. It is sometimes produced in aneurism of the aorta, by the inflammation extending upward to the larynx. On dissection, there has been found occasionally swelling of the tongue, velum, arch

of the palate and fauces. The epiglottis is sometimes observed to be thickened and erect, in consequence of which it is prevented from closing the orifice of the trachea; the mucous membrane of the glottis and larynx also thickened and vascular. The infiltration of serum under the mucous membrane is so great that the sides of the rima are brought nearly in contact. Coagulable lymph has sometimes been found on the free surface of the mucous membrane of the glottis and epiglottis. The tumefaction of the mucous membrane generally terminates at the junction of the larynx and trachea, but increased vascularity has occasionally been found in the trachea and bronchi. On account of the rapid progress which this disease sometimes makes

it is of the utmost consequence that an early diagnosis be made. It may be known from caries of the cartilages, by the slowness of its progress, beginning with uneasiness in the larynx, followed by hoarseness; by the occurence of cough and difficulty of breathing being sibilous and in paroxysms; the purulent expectoration of a fetid odor; portions of cartilage being found in the expectoration. From abcesses in that region, it may be known by the hardness, swelling and pain on pressure, oedema and inability to open the mouth widely. These abcesses are usually situated behind the broard portion of the cricoid cartilage where they press on the rima glottidis. Aneurismal tumors sometimes give

rise to symptoms resembling those of laryngitis: from these, it may be recognized by their gradual progress and by the physical signs which they give, when the ear is applied to the chest. Laryngitis is readily distinguished from tonsillitis, by the great difficulty of breathing which attends it. In the latter, there is dispnœa from the great enlargement of the tonsils, but they may almost always be seen, if the fauces be examined. Sometimes in the latter disease, the patient can not open his mouth widely, in consequence of the pain which it gives him. It is easily distinguished from cynanche pharyngea; in this complaint, great pain and difficulty of deglutition are experienced; but the breathing is unaffected. In croup, there is great dispnœa, but no difficulty

of deglutition. It is said that hysterical persons are sometimes affected with symptoms resembling those of cynanche laryngea; but it is readily discriminated from the latter, by the previous history of the patient and by the symptoms with whit it usually commences.

By some persons, acute laryngitis is considered exceedingly formidable. Much however will depend upon the constitution of the individual. If it occur in a person of a robust constitution and free from any pulmonary disease; and if the inflammation recede; the pain in the larynx and the swelling of the epiglottis diminish; the breathing, expectoration and difficulty of deglutition become more easy under the treatment, the prognosis will

be favorable. If on the other hand, the breathing become more difficult; if there be paleness and lividity of the complexion; a prominent, watery eye and lethargy, or stupor, the prognosis will be exceedingly unfavorable. In the treatment of this disease, it is of the greatest importance to determine the propriety of bloodletting. If it commence with a full strong pulse and hot skin, it will be proper to take blood freely from the arm and to repeat it, if found necessary. If it be not deemed expedient to repeat the bleeding from the arm, leeches may be applied to the throat. Should it be inconvenient to get leeches, cups may be used instead, to the side or back of the neck. After blood has been taken freely, the next best remedy is mercury which should be administered, until the gums become

slightly tender. In order to accomplish this, the calomel should be given in a full dose, at first, and afterwards in two or three grain doses every two or three hours, either alone or combined with opium, if this be not contraindicated. Frictions with mercurial ointment to the inside of the thighs may be employed for the purpose of bringing the system under its influence more speedily. As soon as the patient complains of any tenderness of the gums, the mercury should be moderated or entirely suspended. Small doses of Dover's powder may be given in combination with the calomel for the purpose of preventing the latter from passing off by the bowels and also to allay the cough. Antimonials have been recommended in this disease, by some practitioners and they may be useful, but care must be taken that they do not bring on vomiting

lest some of the matters ejected from the stomac, escape into the larynx and bring on paroxysms of suffocating cough. Blisters are sometimes used upon the side or back of the neck or one of the preparations of ammonia as counter irritants; the latter are preferable on account of their more speedy action.

In asthenic cases in which general bleeding is inadmissible, the main dependence is to be placed in cupping or leeching and blistering and the prompt and efficient use of mercury. This latter remedy should not be employed, if there be any complication with tuberculous disease of the lungs. When bleeding and mercury fail, it will be necessary to perform the operation of laryngotomy or tracheotomy. When the system begins to show, that it is poisoned by the venous blood which is circulating through it; and when there are evident signs

of sinking, the operation should be performed immediately. If it be defered too long, death may result, although air be admitted into the lungs, from the poisonous effects of the venous blood which has been circulating through the system. If there be extensive tuberculous disease in the lungs, it will be better not to operate, as the patient will die from it, and his death ascribed to the operation. It is sometimes considered advisable to operate when there are tubercles in the lungs, and the patient is not likely to die from them soon, in order to prolong his life. The operation should be performed in the following manner. The Surgeon, having a trachea tube or blunt wires with tapes fastened to them, should have the patient placed on a table, with a firm matrass under him and something firm placed under his neck, so as to throw the trachea as far foward as possible and allow the head to fall back. The head being held firmly by an assistant

the Surgeon makes an incision, in the median line, through the integument down to the crico thyroid membrane; he then directs the patient to take a deep inspiration and as he does so, he thrusts his scalpel or trocar obliquely downward through the membrane into the trachea. The tube is then to be introduced into the opening and fastened, to prevent it from being displaced. If the tube be found too irritating, blunt wires may be used instead and fastened in the same manner. As soon as the opening is made the patient falls into a sweet sleep from which he awakes much refreshed. The inflammation may now be cured at pleasure. The patient must be watched carefully night and day, so as to remove the mucous which may accumulate at the opening. It will also be necessary to instruct the patient to place his finger over the tube, after having taken a long breath, and then to force the air through it and with it the mucous. After the inflammation

has been subdued, the tube should be removed and the opening closed.
The voice will be lost for a time, but it will be recovered when the larynx has been restored to its functions.

An
Inaugural Dissertation
On
The Differential diagnosis
of
Cardiac diseases,

Submitted to the examination
of the
Provost, Regents, and Faculty
of Physic
of the University of Maryland
For the Degree of
Doctor of Medicine
By
R. Pinkney Lake
Of Maryland.

March Anno Domini 1849.

In fixing upon a theme for a dissertation before presenting ourself as a candidate for license to practice medicine, we have selected one, the knowledge of which is as important as its deficiency is common. For although the diseases of the heart are common and are profusely estimated grave and dangerous, yet from the too often erroneous impression of their being necessarily fatal, their pathology is too much neglected, and a habit of the inappropriate application of their symptoms to their causes is very defective.

In presenting therefore to your examination this necessarily imperfect sketch of the subject we claim an indulgence which we hope will to some extent palliate for its many defects.

Indeed it would be impossible to put into your hands a production however short that would stand the test of criticism, the study of medicine being to the student more that of an abstract science than one of experience and observation.

But considering the practical advantages of being able to discriminate diseases, in their treatment, we have gone back and inquired, in the present case, in what this difference consists, leaving their therapeutics out of consideration. Indeed this is necessary to some extent in the treatment of all diseases. For diagnosis is the very foundation of the practice of medicine. No disease can be properly and rationally attended to, unless it can be distinguished from all others which it resembles. Nor is it possible to conceive an idea of a disease unless it be first known

in what its nature consists. Therefore in attaching importance to our subject we do nothing more than its nature requires.

Before the physical signs were known & applied to the investigation of diseases those of the heart as well as those of the lungs were imperfectly understood, and consequently their treatment irrational and dangerous.

But since the discovery by Laennec of these agencies in translating their invisible and silent ravages in the human system, the mists which hovered about them have been gradually clearing away, and an impulse given to their study which plainly attest to the interest with which they are viewed, and the high value attached to them.

And although springing from his hands not Minerva like perfect in all their parts yet so far advanced, as to form almost an impossability of improvement even by the refined skill of a far advanced stage of an enlightened

profession. But time in this as well as in all things else human constituted an element and was to be respected; and observation and experience to have their right of prescription and attestation. And after going through the tests of able successors and receiving their sanction, they are now scarcely cavilled at, but received among the profession as among the most valuable discoveries in medical science.

But confining ourself to the investigation of the signs of difference by which the diseases of the heart are distinguished from one another and knowing of no plan laid down by which we are to be governed in our procedure, we are consequently thrown upon our own resources for one of our own. And as it is our object to concern ourself in the present review only with those signs which appear in life and not to draw upon the history of post mortems, we

shall dispence with the Anatomy of the Organ both normal and abnormal only so far as they have direct relation to the causes producing the symptoms about which we become engaged as we advance.

But the physiology of its functions being of greater moment to the subject, will claim more attention, as it is upon these modifications that the structural alterations are known.

Assuming then the heart to be in a state of integrity and its functions to be properly performed, then it is in the first place to be noticed an impulse given to the parietes of the chest, & if the ear be applied to this region there are audable two distinct sounds, and known as the "natural sounds". Now every departure either in the seat, or in the force or in the extent, or rhythm of these impulses constitutes a pathological condition.

Again in the sounds are modifications of seat of force, of extent, of rhythm, or it

may be perhaps that they are altogether concealed, or wanting, or replaced by others, and these taken together constitutes its local symptoms or physical signs.

Now again we have general symptoms which assist in the diagnosis of its diseases and to which was the appeal formerly made only, those last mentioned being of later date but are of far greater importance. These are sometimes complications or the compensatory efforts of sympathising parts, or more frequently sequencies produced by mechanical causes, and are often looked upon & erroneously esteemed specific and distinctly separate disorders. They may be classed under, First.

Congestions, as engorgment of the veins and capillary systems and are evidenced by embarrassment of circulation lividity of skin, pulsations of the venous

trunks &c. Or again of the mucous membranes & is announced by anorexia, eructations, pain &c. Sometimes too the lungs are the seat of this congestion & are not unfrequently the first to give signs of the disease going on in this central organ of circulation. Then too the liver and the brain are in like manner affected and symptomatic of this ravages.

Secondly. Hemorrhage., and as this is but one remove from congestion it is found as its result in the same organs but more particularly in the lungs

Third. Serous Infiltration., occurring as anasarca or as ascites or as general or local, active or passive dropsies. Now is this condition of things of any small moment to the patient occurring as it does in an advanced stage of the disease and is indicative of much organic derangement.

Fourthly. Gangrene. And this always beginning in the extremities & of not much importance as a Symptom only so far as it evidences, like the last, great danger to the patient and approaching death. It generally occurs in adranced age and in the later stages of the disease.

Fifth. Dyspnea, or Symptoms brought on by imperfect hematosis or pain on inspiration. It occurs either habitually or paroxysmally or in both ways. When coming on in expectations it constitutes what is known as Cardiac Asthma.

Sixth & lastly there are disorders of innervation, as acute pain in the epigastric region, & thence radiating to the left shoulder and known as Angina Pectoris, And others which we will not mention here.

Now it being by these evidences that

we are enabled to make out a diagnosis concerning these diseases, their exact nature progress &c; and as those which are physical are mainly to be relied upon it was necessary for convenience that they should have intelligable names given them according to their character impressed by the structural alterations producing them. Hence we have what are generically called Intra Cardiac, and Pericardic or Friction Sounds, as well as fullness preternatural or otherwise. The former it might be remarked, occurring almost always in diseases of the valves; and subdivided into sawing, bellows, rasping filing whistling or even into "true Musical sounds" — the other dependent upon pathological conditions of the pericardium and also known by appropriate names, as filing, rasping, rustling crackling &c Whilst the last upon change

in the bulk & fl. of the organ.

Having now come more immediately to our subject proper, we shall in endeavouring to elucidate it be compelled to follow a somewhat promiscuous plan, taking first of all into consideration the error of relying upon isolated symptoms or even those which are most significant of disease. Yet occurring in different lesions or affections and possessing the same characteristics in all. As for example we have increased dullness on percussion, an effusion of serosity in the pericardium, or when there exists tumors contiguous, or in hypertrophy &c.

Again there are sometimes produced symptoms by affections of other organs mimicing those when the heart is not at all implicated. Therefore it becomes necessary that all these things be taken into account in the investigation of the diseases of this organ —

Now can these sources of Error be remedied only by a clear knowledge of the differential signs which alone distinguish these diseases one from the other. Taking up three some of the most prominent and most frequent diseases met with in this organ, as examples of the principle, & which resemble each other in their semiological manifestations, we shall content ourselves with their consideration without ~~this~~ going into detail of those others which are of less importance.

Then the question which we shall first consider is that of those signs by which the inflamation disease of the heart, as Pericarditis & Endocarditis can be distinguished - leaving out the division of the substance of the organ Carditis it being of little importance to separate in treatment, & almost always come

pleated with one or the other of these.
Now upon examination after death these
cardiac affections are found to be separ
ate and distinct in an anatomical point
of view, yet still possessing in life like many
other diseases in other parts of the system
possessing many of the same diagnostic characters.
Without detaining them in pointing out these
characters which denote the presence of
each separately, we shall only notice those
by which they may be distinguished.
First then the General symptoms such as
febril reaction, hurried respiration, dyspnea
constrained posture, oedema, inflation of
the extremities, delerium. &c affording noth
ing intelligable to our purpose we shall pass
them over. Again the local physiological
manifestations as pain about the region, mod
ifications in the impulse or beats give us noth
ing valuable or very definate. but only in the
preternatural prominence produced by the

Effusion of serum in pericarditis in the investing membrane we have a sign of difference, it being less prominent in the other disease.

2d. The physical signs again present on percussion, no reliable information, dulness being in both a symptome, only as it respects its location, it in the one case extending upwards whilst in the other, principally in a transverse direction.

Then the signs by auscultation must be sought as the par excellence of all the other symptoms for a diagnosis in these affections, - the friction sounds being significant of the presence of the one, whilst the intra cardiac murmurs denote that of the other. These possess certain characteristics, - the valvular murmurs in endocarditis being first always deep seated, distant &c. whilst the friction sounds of pericarditis are superficial. Second.

the former are commonly simple, the latter most often double. Third, the murmurs have a soft character generally and the friction sounds rough & grating. Fourth. When the first are established they remain fixed, but the last are frequently changing their place. Thus we might go on enumerating more, but as we are not attempting to write out a full history of these symptoms, we will sum up as briefly as we can the general rule by which they are generally appreciated by physicians. When when there is violent febrile reaction proceeding as ascertained by the other symptoms mention, from an inflamatory Condition of the heart, a strong, active, impulse against the parietes of the chest, And an intra Cardiac murmur heard, Endocarditis may be admitted to exist; if with the first the friction sounds are heard, with a feeble impulse & pericarditis is the mischief.

Such are the leading principles by which the physician is governed in the investigation of the signs of difference which characterise these affections. And they are but principles. For it would be impossible, & unprofitable even if possible, to enter into a minute description here of all the symptoms which are characteristic of these inflamatory disorders as they respectively arise. Leaving this division of our subject then and hurrying on to another we shall next consider Hypertrophy. And of all the diseases which fix themselves upon this organ perhaps that of hypertrophy has occasioned the greatest difference of opinion among the learned and scientific of the profession. Indeed the very nomenclature itself has been a subject of almost endless discussion. Whilst we find one upon the principles of generalization (making but one or two distinctions), another has divisions in endless variety.

But considering it useless in practice as well as burdensome to the memory to retain an array of names for diseases, which if they differ at all in their intimate nature & seat or in any other manner, give at least no appreciable evidences in life of their separate existence we shall notice but few of the principal divisions in this inquiry wherein they differ in those manifestations by which they are separately recognized - Having ascertained them by the common symptoms, as occurring as general or local, physiological or pathological that then exists cardiac hypertrophy, it devolves upon us to show by what symptoms this may differ in seat or in kind & also those which distinguish it from the diseases of other organs which it resembles. How to ascertain that hypertrophy (simple or eccentric according to Dr Watson) be of the the left or of the right ventricle, the right or left auricle or of all these cavities or more than one

has by some been professed, but we think exceedingly difficult. We shall not enter upon such nice directions here, but be more general as our space is too limited. How can Hypertrophy be distinguished from Pericarditis? First by the nature of the dulness which has already been pointed out. 2dly by the force & energy of the impulse, which are always very marked in the former disease. 3d by the absence of friction sounds, of pain, & the reactional phenomena which peculiarly mark this disease. From Endocarditis by increased extent of dulness, absence of murmurs, & the sympathetic phenomena accompanying it. From Emphysema of the lungs by the abnormal resonance in this disease, of the whole surface of the chest & dulness in the precordial region. From Pleuritic effusions by absence of dulness on percussion at the posterior bon

of the lungs, the commemorative signs and the absence of all those other symptoms in this affection by succussion and auscultation. Thus we might Enumerate other diseases which are liable to be mistaken for hypertrophy. as aortic Aneurisms, tumors in the mediastinum, dilatations &c. But we shall now go on to inquire if there be any signs by which it can be certainly ascertained, that the hypertrophy be of this or of that Cavity! Now by going back and inquiring into the causes of hypertrophy, we shall find that it had its origin in a great majority of cases in some mechanical obstruction from diseased valves. Or if it be owing to morbid action from constitutional taint or otherwise, we find from the nature of its (heart-) ism with a view to its functions it must exist more frequently in the Left than in

them in the right Cavities. Now according to Dr. Watson this is the case nineteen times out of twenty and he comes one of the best of our diagnostic signs. But as this twentieth time is uncertain in its attack we shall have to seek for some other symptoms by which to detect its appearance. Then when hypertrophy is found to exist, and there be absence of that large and strong pulse which belongs to that of the left ventricle; or if there be swelling of the jugular veins accompanied by pulsations, and especially if synchronous with those of the arteries, and together with this lividity of the surface, habitual blueness of the lips, cheeks, tongue, we might with great certainty infer that the affection was of the right and not of the left ventricle -

Now again it rarely occurs like the Auricles, and if it should it almost in every case coincides with dilatation of these Cavities. Or in conection with that of the Ventricles.

Of Atrophy we shall say nothing, it being the very opisite of its Antipodes hypertrophy. Dilatation too is an affection of the heart of no very rare occurrance. It is either simple or confounded with hypertrophy. May easily be distinguished from the inflamatory diseases; And from hypertrophy by the great feebleness of the impulse, extent of Dound, clear and audable over a large portion of the chest. Considerable feebleness of the pulse, tendency to venous congestions & to passive hemorhages which always accompany it.

Thus are these affections usually distinguished from Each other. But these

are wholy insufficient in themselves to determine with absolute certainty, their seperate and independant existance. It is not sufficient that these alone be sought after ~~alone~~, however valuable in themselves, as possessing all the information required in making up a correct diagnosis. This must be sought for also, in the history of the case; its aetiology is of importance, as well as the effects of medicines, which frequently like chemical reagents, as some one has said, discovers to us the otherwise latent principles which enter into the compound, as some of its formative constituents.

Again Induration and softening are affections also, not unknown to this organ, but are of difficult diagnosis in the living state. We shall pass them with fatty degenerations malformations proper, sanguineous concretions, hydropic affections &c, over. as possessing to extensive a field to be noticed here.

We shall now take up as the last class we shall notice, diseases of the valves and orifices of the heart.

And as it is here that the beauty and the value of this physical Pump are most evidently, and as these affections are the most common of all the other cardiac diseases, we shall dwell more time on their examination.

Now the heart being an animated and self moving machine, situated midway between two systems, receiving from the one to supply the other, we find it surrounded by channels, guarded at their orifices, (when it is necessary) by valves all suited to subserve the ends of functional and vital purposes. And it is in these floodgates of the circulation we find these disorders located. They are the Mitral and aortic on the one side and the tricuspid and pulmonary on the other, in construction of a fibro serous character, and consequently easy of a cartilaginous or osseous transformation -

Now these alterations affect the circulation in various ways; when they upon the free pas
sage of blood the are said to be in a condition of contraction; or if altered so as to admit its return that of regurgitation, or if they at the same time both contract an orifice, and impede the action of the valves so as to create a reflux it is then called contraction with regurgitation.

When the valvular alterations of the left side being proportionally of much more frequent occurrance, than that of the right we shall take into consideration first the Nature of the Mitral and aortic degenerations. They are of a cartilaginous, osseous or osteo cartilaginous character, occupying or deposited upon the base, free surface or border, or the whole of the valvular apparatus, and affording impediments to the circulations, and action of the valves in every possable manner. Again warty and globular vegetations spring up from

these membranes and produce functional alterations. So also of the valves and orifices of the right side.

Now to determine a diagnosis, it must first be settled, that an attuation exists, 2dly the orifice or cavity affected, then if there be regurgitation or contraction, if so the nature of the attuation, and lastly, whether there is or is not a complication. The first of these rules is in most of instances exceedingly plain and easy to ascertain. If together with some of the general symptoms, as cough, dyspnea, orthopnea, oedema, haemoptisis, pulmonary congestion, anasarca, we find colliquative diuresis, swelling of the jugular veins with pulsations, and vibratory tremors, with abnormal murmurs it may be looked upon as settled that this condition of things exists.

If the disease be of the Aortic valves and there is contraction of the orafice, then is heard the systolic murmur along the

course of the ascending Aorta for about two inches, the nature of which varies and where maximum is over the region of the valves. The murmur is also a prominent symptom, and coincides with the systole. If there is heard on the other hand regurgitation without the vibrating murmur, with a blowing sound along the carotids, and subclavian arteries. It is the disease of imperfect closure of the valves or regurgitation. If on the other hand the Mitral valves be the seat of disease, then will the murmur be heard at its maximum at the apex of the heart, and synchronous with the systole of the ventricle. It is feeble and soft in the contraction of this orifice and if there be regurgitation the vibrating murmur is evident. But if there is an obstacle to the free passage of the blood and also regurgitation, a double diastolic &

Systolic murmur is heard.

Now also of the right side of this organ. And if the affection is of the pulmonary valves, we have the same sounds as in the diseases of the left only the murmur is more elevated and of a higher pitch, and is best heard along the root of the pulmonary artery. So with is there as in that alteration that bruit ing and diastolic pulse. - So with the tricuspid as compared with the Mitral

Now taking into consideration the great proportional difference in the occurrence of these alterations as it respects the right and the left cavities of the heart. And with this the general and local symptoms characteristic of them, an accuracy of diagnosis by the skilful, amounts, in most instances to absolute certainty.

Thus do we finish this short and imperfect review of this most interesting subject. To tell of its difficulties one many defeats stands out as monuments. To comment upon its importance, would be to presume upon the eloquence of the bedside of its victims. Therefore do we submit it with joy to other hands, more learned we trust in their execution, than our relations would justify.

1st Case

On the twenty third day of September 1848, John Flaherty aged twenty six Years, a laborer of large robust frame and light complexion. entered the wards of the Dalto Infirmary. He had left (Ireland) his native country but two or three months before; his health previously had been good and his habits not very intemperate. He had been suffering for three or four days from a slight cold supposed to have been caused by change of climate and exposure He was working in a malarious district when taken sick. The Symptoms which presented themselves at the first examination were some fever, cough without Sputa, pain in right Side, His bowels were free. The diagnosis was rather obscure, but he was ordered three grains of Quinine every two hours and to be bled from the arm if there should be an increase of fever, Sept 24th The fever haveing increased

blood had been taken from his arm, and by cups to the amount of sixteen ounces, this morning the symptoms of Pneumonia were very evident, We found considerable dullness on percussion, crepitation and slight hepatization of the right lung. Alterative doses of Mercury were prescribed for him. Sept 25th We found this day the peculiar symptoms so general in this affection. Rusty Sputa, Violent paroxisms of coughing, with great pain, Slight Salivation, pulse 96 in minute bowels free. Treatment Tart Antimony gr ii. Aqua ℥ iv. Gum Acacia ℥ i. ℥ ß. every two hours. Sept 26th Both lungs implicated - hepatization of middle and lower lobe of the right lung. Complication of Bronchitis. mina clear, Bleed if there be increase of fever and continue Treatment Sept 27th Very slight change if any for the worse Crepitation very faint, Same treatment, Sept 28th Return of Crepitation, Bronchial respiration. eats little, Stools thin feels little better

Sputa tinged, haa no rise fever. Pulse 98. in minute. Treatment Hydrargyri chloridum gr ii &
Tart Antimonia gr ¼. every three hours.
Sept 29th Not so much dulness on percussion, more
vocal thrill on application of hand to the chest,
Crepitation finer, Sputa less tinged. Salivated,
Pulse 78. Treatment Stops mercury. continue the
antimonia alone ½ gr every two hours
Sept 30th Very much improved. Petechia on his neck
bowels regular pulse 76. Crepitation more audible respirations 24 per minute. Slight cough
not much Sputa. Treatment Tart Antimonia gr ½
Oct 1st Much better Crepitation Slight. Hepatization
of the right lung from the nipple down.
Oct 2nd. Under Prof's Power. Continues to improve
cough ceased, pulse regular. Treatment continued. Oct 6th Convalescent pulse and tongue very
healthy. Oct 8th Left the house well. We have in
the preceding case a beautiful marked one
of Pneumonia and we had just cause to con-

-gratulate ourselves not only for being able to observe through all its stages this important ma-
-lady but also because we had one to instruct us so fully competent to search out its intricate symptoms and to explain every thing of impo-
-rtance or interest. During the time that we watched the progress of the disease under his instructions we became acquainted with the invaluable signs of auscultation and learned how much assistance they afford us in the for-
-mation of a correct diagnosis.

To recapitulate. 1st The general symptoms which presented themselves were pain caused by some degree of pleurisy which declined as the Pneu-
-monia advanced. Cough. Rusty coloured Sputa dependent upon the mixture of blood with altera mucous. And the physical signs were 1st Stage we had fine crepitation denoting engorgement 2.nd Stage Bronchial respiration or broncophony and dullness on percussion that of Hepatization

The treatment was of most judicious kind. the patient was a robust individual. the inflamation being of a sthenic type the bleeding was of great value, And we had an opportunity of observing the almost Specific influence of Tartarized Antimony and Mercury in inflamations, the Antimony although exhibited in considerable doses produced only general depression of the System and exerted its beneficial influence upon the disease without giving rise to retchings and vomiting. In the Second Stage Mercury was exhibited until it produced ptyalism and as soon as the gums were affected there was a marked improvement in the Symptoms of the disease.

3rd Case

Ileus. in a man by name of Ball aged about 30 Years of temperate habits. & Cooper by trade, of no cachectic diathesis. This Ileus was the result of Gastro Enteritis caused by the

intemperate use of beer and Spirits. Treatment opii gr v. Hydrar. chlor mit grviii. in form of pills to be given in proportion of one to five every four hours until improvement is perceptable. Sept 12th. Pill every four hours until cessation of pain. If at 4. O.Clock there should be no alvine evacuation give ℥ ß castor oil followed in an hour by enema. Sept 13th continue treatment. pulse more quick, and Slightly better. Sept 14th Greatly better. throwing up bile, Treatment as an antacid, Seadative, and anodyne, ℞. Bi car Soda ℥ij. ℈ Acacia ℥i. Sueph Morphia gr.i. water ℥vi. ℥ ß. every hour. Sept 15. Bowels constipated, continue treatment, with ℥ß. castor oil. Pulse 70. general appearance better. vomited some blackish water. drinking always excites vomiting. Sept 16. No opperation, vomits some but not so much. Skin dry and cold. pulse good. abdomen tympanitic. tongue healthy in appearance. From all appearance is convalescent

Treatment ℥.ii. castor oil. if not moved an enema in an hour. Sept 18th Tolerably well, but very weak, pulse good, bowels regular—gives as cause of present attack, haveing drank a good deal of hard porter. Sept 28th Was imprudent in diet Yesterday, and in consequence of which he is worse to day. Treatment antacid and anodyne. Morphia ℞. Sept 33rd Not much better pain in the right lumber region pulse 80. bowels constipated. Oct 3 Has no sleep for Several days and nights constipation with profuse perspiration. No fever appetite good. Oct 6th A tumor in the right hipochondrical region diagnosis that of Ileus caused by fiacal accumulation. Treatment Mercurial ointment rubed over the tumor. 1 gtt in four pills of oil Sigilli. Oct 7th Yesterdays treatment did not cause many operations. Treatment oil Sigilli 1 gtt in three pills. Oct 8th Not many vacuations Treatment 1 gtt two pills and an enema by the rectum tube. Oct 9th Complains

of Yesterdays opperation. passed a great deal of feaces is decidedly better with the disappearance of the tumor in the right side.
Oct 10th Improveing rapidly pulse 76. tongue & countenance healthy—will leave the house in a day or two his health permitting.
To review the case we had. 1st Gastritis which he was treated for accordingly and very judiciously and of which he was cured.
It appears probable to suppose that the case assumed the form of Ileus from the simple loss of Muscular power of the large intestines, and would have passed into inflammation at an advanced period; if it had not been properly treated, and death would have been the result on the supervention of gangrene.
Those cases which are fatal seem to differ chiefly from enteritis from absence of fever, and in morbid appearances by being fatal with simple gangrene uncombined, with the flaccalent or pseudo membranous deposition

of interetis. In treating a case of Ileus the first thing to be kept in view is that of the existance of hernia for hernia may exist without the patient being aware of it, and the hernia may be so small as to include only a small portion of the intestine, and yet be the cause of fatal Ileus.
But in the case refered to the Symptoms were of such a character as to render our diagnosis certain beyond a doubt. We had first obstinate costiveness with a tumor in the right illiac region, not to be mistaken for hernia being internal to the muscles, and above Poupart's ligament. 2nd Hifea pain with tenderness about the head of the colon. 3rd Attacks of tormina from the action of a drastic purgative to a certain point, there stopping followed by vomiting which was often feculent. Blood letting is an important remedy in acute cases of ileus but was contra indicated here as the

patient had scarcely recovered from the attack of the previous disease and could not have born the loss of blood well.

Purgatives of the most drastic kind are indicated and in full doses as was exhibited in this case, Opiates are useful to modify the disease. We come next to speak of the Nelaton tube, which was entirely successful in this case when other active agents failed, after removeing the disease we are then to support the general System and give tonics to prevent a relapse.

On the twelfth day of last Sept (the anniversary of the battle of North Point) I was walking in company with a very intelligent medical friend a young man of fine abilities, While we were passing through one of our public Streets, we were suddenly stopped by a man running and nearly out of breath who recognised my friend as a Physician informed him that during a fracas between some of our City firemen

An

Inaugural Dissertation

or

Report of Cases

Submitted to the Examination

of the

Provost Regents & Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

By

William S. C. Du Hamel

Maryland

Baltimore May 15th 1849

Dedicated to

Prof. Samuel Chew. M.D.

Physician of Baltimore Infirmary

during the Summers of 1847 & 1848

as a small token of the unbounded

gratitude I owe and feel for his

invaluable Services and assistance rendered

in the pursuit of Medical Knowledge

By his Sincere friend & pupil

William S. McDu. Hamel

The National Medical Convention assembled in Baltimore in the month of May eighteen hundred and forty eight made Sundry recommendations for the purpose of elevating the Standard of requirements for the degree of Medical Doctor. Amongst these was one favoring the substitution, in the place of the customary Thesis, of a report of three or more cases of disease which may have come under the observation of the applicant. Having understood that this plan has met with the hearty approbation of Your learned body. We rejoice at the opportunity which we enjoy of being among the first to offer our feeble efforts in furtherance of this recommendation of that talented body, Accordingly beg leave to submit to Your examination the following ——

A man had been struck with a large stone. We hastened to the spot designated and found that I—. W—. had received several hours before a blow from a large stone upon the superciliary ridge, near the outer angle of the eye or nearly over the transverse suture as it sinks in the orbit. On examination my friend found (a small triangular wound of the integuments in the locality just named) considerably tumefaction around the part and very extensive ecchymosis, Could not ascertain that there was any fracture. Countenance pale and sunken pulse 60. soft feeble. He was comatose but could be aroused and answerd questions correctly. Had vomited some blood. Owing to his general appearance and the state of his pulse general blood letting was not resorted to but six Leeches were applied near the wound and a large dose of Senna and Salts given Sept 13th A.M. Cathartic had operated freely. he informs his attendents when he desires to use the stool either for evacuating the bowels or bladder, More easily aroused but still comatose. pulse

the same as last evening. Tongue dark and dry
℞ Pill. mass. Hydrg gr iii. Pulv Rhei gr. v. to be given
every other hour. Evening of 13th Pulse fuller than
in morning. Repeated they Seeches and Cathartic
Infusion & Mass Hydrg gr xx. Ext Hyos gr iii. Pulv Ipecac
gr vi M. H. Pil vi. one every other hour.
Sept 14th General appearance better much as
Yesterday but more wakeful. Pulse the same as last
evening continue Pil
Sept. 15 8. O. Clk. A.M. Has had several discharges during
the night of dark faecal matter. Tongue moist pulse
rather fuller. Has conversed rationally on several
subjects. Treatment omit Pills. 11. O Clk. pulse 65 and
much fuller than it had been since the receipt
of the injury. Complains of dizziness and pain
in the injured side of the head and ringing in the
ear, vission indistinct in the eye of that side though
pupil contracts properly. Treatment Venesection xvi ℥
from the arm in a full stream. Appearance some-
-what improved immediately. ℞ Flor Arnicae ʒiß
Aq Herb ℥iiiß m/ for half an hour then strain and

aaa Ext Aconite vi gr. Syr Rhei ℥ii. Ft Mist. Coch magn ii (a e ℥i.) o.h, ana pill Hya as on the 6th acidulated drinks. 8.0. Clsf P.M. Symptoms unfavorable restless talks of revenge and in an incoherent manner. Cups to the temples and back of neck took viiii ℥. Sept 16a A little improved continue cathartic of Inf Senph Magnes and Pil.
Sept 17a Nearly the same. continue treatment.
Sept 18a Ptyalism produced. Omit Pil. continue the mist. Sept 19a Tenth day from receipt of injury Suddenly much worse pulse feble and intermitting great nervous irritability very restless talks incoherently. considerable degree of dyspnoea. Decoct of Cit. Cinchon Flav. Infus Rad Valer large doses and frequently repeated. 20th Better. Rational. pulse 65 Soft and regular nervous irritability subsided continue both mixtures Sept 21st A.M. Pulse 75. full and hard pain in his head returned. Venisection to amount of xii ℥ when pulse became soft and deminished in frequency to 65. per minute R. Infs Senph Magns Sept 21st P.M. Is calm. says he feels well and wants

meat. Has had several copious bilious stools.
Sept 23rd Continues better but feels weak. Treatment
take freely of rice water and resume the Cinchona
Water. From this period he recovered rapidly. The
ringing in ear and affection of eye previously before
to wore off by degrees. We have in the preceding case
concussion of the brain. which was followed by com
pression either from effusion of blood or pus caused
by concussion. We have reason to believe there was
effusion from the Symptoms but we were saved from
the necessity of Operating by the absorbing influ-
ence of Mercury and Blood letting, for marked
improvement followed as soon as they were made
to produce their full effect upon the System

I have thus Gentlemen endeavored to give
You a brief and exact account of these several
cases and hope that this my earnest yet hasty
offering may be kindly accepted.

An inaugural Report
of
Sundry Medical Cases
Submitted to
The examination of the Provosts
Regents and Faculty of Physic
of the
University of Maryland
by
William E Peach of
Maryland.

The present report has been selected from cases which were in the Baltimore Infirmary during the past summer and winter. The symptoms of which with the treatment I beg leave to present to your honourable body, and hope they may meet with your approval.

John F— was admitted into the Infirmary the 20th September 1848. He was a native of Ireland and had been here three months. He was 21 years of age and quite a strong and muscular man, of plethoric constitution and sanguine temperament. He was sick a week before he came in, and said he had received no medical treatment whatever. Remembered having felt somewhat chilly, and then was taken with increased heat of skin, and thirst. On the 24th he complained of pain in the right side,

had much cough, but the expectoration did not yet present the characteristic of Pneumonia.

He appeared to have some Bronchitis, although not sufficiently evident to make it positive. The next day all the symptoms seemed to confirm the suspicion that it was a case of Pneumonia.
He was bled freely from the arm and crepitation was heard in his lungs. A dose of blue mass was given him at night, and Tartar Emetic ordered in 1/2 gr. doses every 2 hours. On the 26th there was much cough and pain and some rusty sputa. His pulse was 96 and he complained much, the Tartar Emetic was continued. The following day his right lung was hepatized, and he was cupped

over his chest. Calomel was prescribed for him every 3 or 4 hours. Tuesday, much the same; pulse active; Tartar Emetic every hour. Wednesday, much dullness on percussion; ½ gr. Tartar Emetic was given with the Calomel. His pulse was 86, and dullness remained; the Mercury was omitted The next day his pulse was 86. Friday hepatization of lungs was much diminished, and he appeared much better with a good pulse. He continued to improve gradually until the 16th of October, when he left the Ward.

Eugene R— came in on Monday 25th with Delirium Tremens. It was his second attack. Hop tea was prescribed

and if he should not sleep during the night, 80 drops of tincture of Opium, 40 at a dose was to be taken. The next day he said he had not slept any during the past night, and felt no better. Wednesday night slept imperfectly, 2 ℥ Oleum Ricini, with 10 drops of tinc. Opii was given. Opium was ordered to be taken if much restlessness at night should supervene. The following day he was better, but pulse weak and quick. He was much improved although his bowels were somewhat constipated, for which 2 ℥ of Castor oil with 5 drops of Laudanum were given. Friday he could go about and was able to attend to his former duties.

Noah P— was admitted in the Infirmary the 20th ult of September. He was a labourer in a miasmatic district, and said he was taken sick when at work with a Severe chill, followed by fever and head ache said he had much thirst with some nausea and lop of appetite, had the paroxysms every third day for a week. Afterwards they occurred every day and were more violent, at which time he came to be treated. He was not entirely free from fever, and it was considered to be a case of remittent fever of a malignant form. An alkaline solution was given him, and at night 1 gr. of blue mass with 10 gr. of Rhubarb. The 23rd he was ordered to take Sulphate of Quinine

in doses of 2 or 3 grains every hour until the anticipated paroxysm. The fever had not entirely abated the next day, and he complained of some disturbance in his epigastrium, and he was cupped over that region, and 5 grs. of Dovers powders were given at bed time. The Quinine was continued, and a mild purgative was ordered. On Saturday he had no return of chill, and in two days left the sick room and went out quite well.

John Jones,

A coloured man was admitted into the Infirmary on the 24th of October. He had been in the capacity of a servant on board a steam-boat. No physician being at hand, he said he

received no medical attention whatever for twenty days after he was taken sick.

He complained of much pain in the back and joints, and general lapitude and prostration presented themselves. His pain was such as to render him unable to turn over. He had a full, hard, and quick pulse, with much tenderness and tension of the joints, and also constipation. Blood was taken from the arm to the amount of sixteen ounces, which presented a buffy coat. These together with other symptoms made it quite probable that it was articular rheumatism. Ten grains of Calomel and rhubarb were ordered for him, to be followed by a draught of Salts and Senna in the morning.

The pulse next day was diminished

in frequency and force, and was not more than 90. The same treatment was continued until the second day, when the pulse fell to 72. The Calomel was not given in such large doses, his gums having become a little tender A prescription of Potasae Nitras, and Pulvis Doveri was taken for a while when it was changed for 10 m. of Vinum Colchici with the powders His heart was examined, but no sound except what was normal was heard, and not the least indication of Metastasis to that important organ was discovered Gradual improvement continued, and he occasionally used a decoction of Cimicifuga Racemosa, which was taken in doses of one or two ounces during the day at his pleasure.

A week after he came in he began to walk about the wards, and remained for some time an irregular patient, until he disappeared feeling himself cured.

John B— came in the Baltimore Infirmary on the 20th. of August 1848. He was an Irishman by birth, and a day labourer in the vicinity of the city when he was taken sick. He stated that he felt very unwell ~~before~~ for several days before he desisted from work, and complained at that time of a general uneasiness, lassitude and numbness of his whole system, complicated with slight headache, and nausea. The pulse was somewhat febrile in its character, and he said he had epistaxis several times when he was first taken. Very little was done

for him for two or three days, except he was allowed to drink cool draughts ad libitum, and alkaline solutions were occasionally given him. On the seventh or eighth day all the symptoms were indicative of typhoid fever; rosy coloured spots made their appearance over the stomach, and slight bronchitis manifested itself. His skin was very hot, and the pulse was now about 100 or 120 His bowels were also quite laxative and nothing but the mildest saline purgatives were given him, consisting of small doses of magnesia and Senna. Free admission of air was allowed him from the time he came in, which appeared to be very pleasant and agreeable to him.

Delirium and stupor supervening, he was ordered to be cupped on the back of his neck. On the thirtieth he seemed very sick, answering questions very abruptly and unsatisfactorily, a low muttering of words were often heard, and frequent twitching of his limbs was observed. His tongue was very dry, and a dark sordes collected about his mouth. A mild vegetable drink was given him occasionally to soothe his parched lips. He had been cupped over his epigastrium, but tenderness still remaining, a repetition of the same treatment was indicated, and several cups were applied. The following day he appeared something better, although the violence of the disease seemed very little if at all abated. His pulse still continued

weak and quick. his skin was very dry, and debility seemed to be increasing. Some degree of nervous excitement existed and Hoffman's anodyne was given him at bed time. The secretions being deficient, a small dose of blue mass, about two grains combined with three of Ipecacuanha was administered. The next day much depression was obvious, and mustard plasters were applied to the soles of his feet, and small doses of quinine were given him.

Ten drops of turpentine in solution were prescribed for him, and infusions of serpentaria were given from day to day.

Great debility continuing, it was thought proper to resort almost exclusively to stimulants and tonick mixtures. Various kinds were then prescribed, such as were most

agreeable to the taste of the patient. His diarrhea became a little troublesome, and preparations of kino, catechu and opium were variously administered.

The turpentine served up with Gum acacia was also given, and it was thought that a decided benefit resulted. He gradually commenced improving from this time, and although the symptoms disappeared tardily, yet manifest improvement was evident. Soft poultices were applied to the abdomen, and the treatment afterwards was cautiously remitted.

The tongue was much improved in appearance and its moisture also returned. The fur that coated it soon disappeared, and hopes of his recovery became confirmed.

His improvement was checked two

days afterwards, from indulging too freely in his diet. Sometime afterwards he left the ward, with restored health, having been sick about three weeks.

John G— was admitted into the wards of the Baltimore infirmary on the 28th of August 1848. He was quite a young man probably not more than 21 years of age; had been a Soldier in the Mexican war. Said he was taken sick on his return home on board the ship Many persons were on board, and the accommodations, he said, were not at all satisfactory. The crew while in Mexico had freely indulged themselves in the various acid fruits peculiar to that climate, and all kinds of ardent spirits were taken freely. Several of the passengers and the

vessel were sick, but this man reported himself to have been quite healthy, until the vessel was far advanced on her return home. Then he felt unwell for several days with loss of appetite which was followed by frequent stools of an unnatural and unhealthy character. He was placed in the lower part of the ship, and received very little attention until he reached Baltimore. The frequent discharges from his bowels for so long a time had very much exhausted him, and he was quite pale and emaciated. He did not complain much of his sickness, and said his suffering was slight, but his debility great. He was destitute of fever, and occasionally walked about the room. One grain of hydrarg.

cum Creta and six grains of Dovers powder were given him and his diet ordered to be of the most mild unirritating character. This treatment was altered occasionally and Nitrate of potassa given in conjunction with other medicines. The character of the Stools was not changed however, and his treatment was altered from day to day. The stools became very offensive in their character, and were of a watery rice coloured appearance. Tannic acid combined with opium was tried, and a large blister applied over the abdomen. His diarrhea was not quite so profuse and the number of his Stools was diminished one half, which gave a little hope that this treatment might be more efficacious.

But soon they began to be as frequent as usual and one fourth of a grain of Sulphate of copper with opium was prescribed. Small doses of Strychniae were added to the prescriptions, but nothing appeared to be of any immediate benefit to him. Frequent injections of a soothing character were given him without any benefit, and the stools still continued frequent without any amendment.

One grain of Sulpate of Zinc with kino was given and injections of Nitrate of Silver were used. There had been several cases of diarrhea in the wards, and some had been successfully treated, but this case appeared unusually obstinate. And although various remedies were tried,

sometimes with apparent success yet their effects were very transient and no permanent advantage was realized. There was little doubt from the offensive character of the evacuations and the appearance of the patient that extensive ulceration of the intestinal canal had taken place. Mild nutritious diet was allowed him and tonic drinks to support his strength.

He remained in the ward some time after this, until he was removed by his friends appearing but little benefitted by the treatment he had received

About the middle of Sept. 1848 a coloured woman, apparently about 35 or 40 years of age came into the infirmary and placed herself there for medical treatment.
She was a well formed and muscular woman of a phlegmatic constitution. Said she had been in before under treatment, but did not mention for what disease From her appearance she had evidently been sick for some time previous to her admission.
Her breathing was very short and hurried, and she acted as if she dreaded to expand her chest, for fear of pain. She laboured much in respiration and had the appearance of one sick from pneumonia.
Her pulse was very feeble, scarcely to be felt at the wrist, and also

very quick. She had palpitation cough and much expectoration at the time, which consisted of a tenacious kind of mucus mixed with blood. Her countenance wore an anxious expression and she appeared much distressed about her condition. Her chest was immediately examined and much dulness was audible over and about the Sternum, her jugular veins were swollen and there were frequent catchings in her breathing as if she was choked. There was increased pain on pressure over the chest, and her chief complaint was about the region of the heart. Her pulse was about 120, and often varying, sometimes scarcely to be felt She had been bled before she

came in, and it was not now thought prudent to repeat it, although the lungs seemed somewhat involved in inflammation "the natural sounds of the heart could scarcely be heard, its contraction was confounded and its natural sounds were now either much altered or muffled, by some intervening fluid or substance. A blowing sound was thought to be heard when she was directed to hold her breath. She felt very little disposition to change her position when desired for the examination of her chest but lay constantly on her back, and turned neither to one side or the other:

A large blister was put over her chest, and 3 or 4 grains of

calomel with opium and the nitrate of potash were given her. This treatment was continued until the gums were affected. The next day no improvement was manifest and the blister prevented the future examination of the chest. Tincture of digitalis was given occasionally to quiet the excepive action of the heart Very little benefit appeared to result from the treatment although she said she had slept more quietly during the past night than for some time previous. She was asked whether she had not had rheumatism sometime before to which she replied in the negative but said when she was first

taken it was from a severe cold, that she had exposed herself to inclement weather and no treatment was had for it whatever. Her situation was lingering for some time without any change until she expired, which was about two weeks after she was brought in. Her condition might probably have been benefitted had remedies been timely applied, but the disease was allowed to advance and suffer neglect until the efficacy of medicines at such a time became exceedingly doubtful An examination of her body was made and the pericardium was found much distended with a serous fluid and its parieties clotted with blood.

Her heart was enormously large, being nearly two or three times the size of a normal one. Its internal surface appeared inflamed and little fibrinous exudations were adherent to its walls The valves were also in a diseased state and those around the aorta were raised from their natural position and clung about with little elevations caused by the inflammation. The entire structure seemed in a state of disease, so much so that it was probable that some disorder had attended it for a long time, probably previous to the inflammation of its investing membrane, its muscular walls were also much thickened.

AN

INAUGURAL DISSERTATION

ON

INFLAMMATION.

Submitted to the examination of the Provost Regents

And

FACULTY OF PHYSIC.

OF THE

UNIVERSITY OF MARYLAND

For the degree of

Doctor of Medicine.

BY

G. N. HURST.

Of

Lexington, Kentucky.

IN

INAUGURAL DISSERTATION

ON

INFLAMMATION.

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Inflammation.

This is one of the most important subjects of inquiry, in the wide extent of medical science; for there is no organ, or structure, of the body that is not liable to take on inflammation.

This disease involves several considerations of a general nature, which I will endeavour to point out. There are certain phenomena, for instance, observed to attend it, in its progress, and decline, whatever be the organ or structure attacked.

The causes of inflammatory action are also, very much the same, whatever part of the body may be its seat. I will first consider the symptoms, terminations, and causes of inflammation, and next I shall advert to the varieties of inflammation, whether occasioned by differences of cause, function, or texture of the part affected.

Symptoms of Inflammation -- When a part of the body which is obvious to our senses becomes inflamed, such as the skin, the tonsil, or the eye, there are four alterations from the healthy state of the part which become manifest. These are pain, heat, redness & swelling. It is not any one of these symptoms singly, but their combination, which marks the existence of inflammation. The stomach may be painful from distention. The skin may be hot from fever. The cheek may be red from blushing. The breast may be swelled from the flow of milk.

To determine how far each of these symptoms is to be considered an evidence of inflammation is an object of some importance. 1st A certain degree of pain attends almost every deviation from health.

Pain arises from spasm, fatigue, distension, sympathy, irritation, and along with other symptoms it is an important criterion of infl^{n}.

At first the pain attending inflammation is acute, or lancinating; afterwards it is throbbing or pulsatile, and these varieties of pain indicate different stages in the process of inflammation.

The kind, and degree of pain, in particular cases, appears, to be proportioned, rather to the facility of distension in the part, than to the quantity of nerves with which it is supplied.

2nd, The heat of an inflamed part is the least important, and the most frequently wanting, of all the characters of inflammation. It never can exceed that of the blood at the heart.

It is most conspicuous, therefore, when inflammation attacks a part at the greatest distance from the centre of circulation; such as the great toe in gout, or the point of a finger in whitlow. There is reason to believe, that in the inflammation of internal organs, the heat of the part is not materially augmented.

3rd, Increased redness of a part, if permanent, is nearly decisive of the existence of inflammation.

We find it after death to have occurred equally in cases of internal inflammation. It is obviously owing to one of two causes, or perhaps to both, the enlargement of old vessels, or the growth of new ones.

4th, Swelling is an accidental symptom of inflammation, attributable to the degree of looseness in the structure and connections of the part. Generally speaking, therefore, where there is least swelling there is most pain. Some structures of the body apparently inflame without any swelling at all.

Such are the signs of external inflammation; but the symptoms of internal inflammation, are more obscure, and require more minute investigation. Its presence is judged of in two ways, by local and by constitutional symptoms.

The local symptoms are pain increased on pressure, disturbance of function; constitutional fever, and buffy blood. 1st, Pain is the most important of them all; but in to characterize

it as the pain of inflammation, it must be increased on pressure. The test of pressure cannot, however, be applied in all cases; as in inflammation of the brain and bronchia, where a bony or cartilaginous case defends the inflamed structure.

Pain again is not essential to constitute inflammation.

Where the affection exists in an organ of very loose texture, there is little or no pain felt; as in peripneumonia. Cases have been recorded, of inflamed brain and pericardium proving fatal without any such inconvenience being produced, as to warrant the suspicion of inflammatory action.

2nd Disturbance of function is almost a necessary concomitant of inflammation; and whenever the function of any organ is understood, we may judge of the extent of inflammation in it, by the degree of disturbance which its function undergoes.

The particular symptoms referable to this head are of course as various as the

organ attacked. Delirium marks inflm
of the brain. Impatience of light, Ophthalmia.
Hoarseness, inflammation of the larynx, & Dys-
pepsia, that of the lungs. There are only a few
cases on record of inflammation existing in the
part without in some degree destroying its
function.

3d, Fever, more or less urgent, accompanies almost
every kind of internal inflammation. In degree
it varies from the slight febricula which attends
catarrh, to the highest grade of inflammatory
fever; such as is witnessed in Phrenitis.

It differs no less in kind than in degree.
At one time it is inflammatory, at another
Typhoid; in on instance it has a hectic, in another,
remitting character. It may be held as a gener-
al rule, that the degree of local inflammation
may be estimated by the violence of the consti-
tutional symptoms; but at the same time it must
be borne in mind, that the degree of fever present
in any individual case, does not always bear

a proportion to the importance of the organ affected, or the extent of the local disease. It may run as high in cynanche-tonsillaris, as in a severe attack of pleurisy, and frequently appears to be measured by peculiarity of constitution.

Some persons from these data, have argued not without an appearance of reason, that the fever accompanying local inflammation is not always a secondary affection; that in cynanche-tonsillaris, for instance, it is not the swelling of a small and insignificant gland which raises the pulse to 120; but that fever is the primary affection, which from some unknown cause induces the local inflammation. Where neither the constitutional nor the local symptoms are urgent, it is common with some physicians to employ the term sub-acute inflm.

In a pathological point of view, nothing is gained by its adoption, but practically it is of some use; as for instance in distinguishing and directing the treatment of some

cases of bronchial and rheumatic inflammation.

4ly. - The last proof of internal inflammation is derived from the appearance of the blood drawn. Physicians of all ages and countries have agreed in considering the buffy coat of the blood as a test of inflammatory action; but different ideas have been entertained as to the degree of importance which should be attached to it.

Boerhaave and the followers of his school considered it as the decisive argument in favor of the lentor or spissitude of the blood, on which they believed inflammation to depend. Of late some Physicians have been rather inclined to undervalue it as a symptom of inflammation.

But after a careful review of all the arguments which bear upon this subject, we must conclude that the buffy coat is a very important criterion of the presence of inflammation.

Genuine inflammation, indeed, sometimes exists without it; and the first cup of blood may be buffy when the last is not. These and other anomalies are interesting in a practical point of view, but they do not affect the general question of the pathological importance of the buffy coat. The cause of the buffy coat has been a frequent subject of investigation.

It has been supposed to depend upon the slower coagulation of the blood; but this is obviously insufficient, for blood may coagulate slowly and not be buffed. That blood will prove buffy, may often be predicted from the bluish appearance which it exhibits while flowing from the arm.

That the relative proportion of fibrine in the blood is augmented in a state of inflammation is an undeniable fact. Yet many have attributed the phenomenon merely to increased rapidity in the blood's motion; forgetting that the blood is often

deeply buffed with the pulse at eighty.

Divisions.— Inflammation is divided 1st into healthy, & Unhealthy; 2nd into common, & Specific, & 3rd into acute, & chronic; The acute is sometimes called active, & the chronic passive. Inflammation is said to be healthy when the parts tend to adhere or cicatrize. Unhealthy when ulceration, erosion, sloughing &c, take place.

Common inflm is that induced by common causes, as incisions and the like. Specific inflm is that induced by a specific poison; as that of Syphilis, variola, and so on.

Inflm is said to be acute when the disease runs its course rapidly, and is attended with much general as well as local disturbance.

It is said to be chronic when the local and constitutional symptoms are less violent, and the inflammation runs a longer course, and its phenomena following each other in slower succession. Inflammation may be further classified according to its

Tendency to produce particular local effects;
as adhesive, suppurative, hemorrhagic, ulcerative
& gangrenous inflammation. It is said to
be adhesive when the parts have a tendency
to adhere, or unite together. Suppurative, when
it has a tendency to generate pus. Haemorrhag-
ic, when accompanied by a flux of blood.
Ulcerative, when it has a tendency to form
an ulcer; (or when commencing to form an
ulcer). & Gangrenous, when the inflamed
part commences to take on mortification.

Infl^m is modified by the part which it
attacks. Some membranes are more apt
to become inflamed than others. Again some
tissues are more liable to one form of infl^m
than another. The serous membranes will
serve an example of each. If the mucous
was as prone to take on adhesive infl^m as the
serous we should be in constant danger of a
closure of those outlets of the body which our
great creator has wisely ordered should be left open.

Pathology — There are several theories in respect to the pathology of Inflammation.

One is that there is an increased action in the blood vessels. Another that there is diminished action, & a 3rd that there is both increased & diminished action; the latter appears to be the most rational theory; for it has been clearly proven when a part is inflamed the action of the blood-vessels in the surrounding parts are increased, whilst that of those immediately involved in the inflammation is diminished.

Treatment — In the treatment of inflammation the first object is if possible to remove the exciting cause. The next is to lessen the inflammatory action. The remedies which effect the latter object may be either constitutional or local. Those which act on the constitution are 1st Blood-letting ÷ This is a powerful remedy in the treatment of inflammation.

Rational

The quantity of blood to be drawn, and the

frequency of its repetition, can only be estimated by the violence of the inflammatory symptoms.

Whenever parts essential to life are inflamed, as the brain, or the contents of the thorax, or abdomen, repeated and copious bleedings become necessary.

2nd, Tartar-Emetic, which is one of the best articles of the Materia-Medica to dispell inflammation.

3rd, Calomel = ($Cl\ Hg^2$) - in purgative doses, or some other mild purgative should be given, to keep the bowels gently open.

4th, Certain Neutral-Salts - as the Sulphate of Sodd, Sulphate of Magnesia, are useful by promoting the secretions, and are generally combined with preparations of Antimony; in which case the occasion nausea, and diminish the action of the heart & arteries.

5thly, Opium may be given to relieve pain in some cases, if it be not contra-indicated.

6th, Low diet; tends not only to diminish the fulness of the vessels, but also to lessen irritation, and should be strictly enjoined.

7th, Rest is essential, for motion occasions irritation, and many inflammatory affections are found difficult to cure, because the inflamed parts cannot be kept at rest; fistula in ano affords a good illustration of this remark.

8th, Position - The position of the body should be such as to favour the return of blood from the inflamed part.

d-remedies. 1st, Bleeding from the inflamed part by cupping, leeches, & scarifications. Local blood-letting is most effectual after general bleeding has been premised.

2nd, Cold-applications are sometimes of service, but they should only be carried so far as to be pleasant to the feeling of the patient.

3rd, Blisters are, in certain cases of great use in diminishing inflammation.

They must be applied directly over the inflamed part; and in many cases, produce a speedy cure.

There are many other articles of much importance in the treatment of inflammation, but I deem it here unnecessary to mention them.

Finis.

INAUGURAL DISSERTATION

ON

THESIS

Submitted for Examination

TO THE

PROVOST, SECRETARY AND FACULTY OF MUSIC

OF THE

UNIVERSITY OF PENNSYLVANIA

FOR THE DEGREE OF

Doctor of Music

BY

SEPTIMUS BROWN.

Philadelphia 1894.

Gentlemen, I have taken for my text the subject of inflammation of the Iris. My intention at first was to have confined myself to my text,- as a good orthodox preacher: But of late I have heard so much serio, tragico, comico talk about originality in our Theses;- the presence of which in these renowned productions, I have always deemed more as a matter of tradition than of reality;- I say then, that the changes upon this very word, -Originality;- that I have have been so thoroughly sounded in my ears, come to the conclusion to make my text as a kind of get off, or substitute.- Or in other words, Irites shall be the ostensible if not the real subject of discourse.

My Thesis puts me in mind of the sermons of one Mr. Morphine Velvet, spoken of in 'Ten Thousand a year': This gentleman used to preach to the nobility of London. I suppose his ostensible object was to preach the gospel; but in fact he only impressed this assembled nobility with the idea of how very hard it would be for the tradespeople in the next world.

Gentlemen, having forewarned you of the character of this document, if you should become weary in perusing

it; all I ask is to remember that I have forewarned you.

I have chosen Pritis as the subject of my inaugural dissertation, because I wished to study it, and learn something about it;- not that I would teach anything on the subject to your respected body, not that I know anything novel on it, not that I would appear pedantic in choosing to write upon Pritis instead of Bilious Fever,- not that I would be theoretical to the exclusion of the practical;- but simply that I wished to study Pritis, in its bearings upon Medical Science.

It is said that as men grow older & wiser, the more they see their own ignorance,- now I am neither old nor wise;- but I fancy that I have arrived at that period when I may open my eyes and see what a vast unknown there is before me, not only my own ignorance of the known, but also the woful deficiency in the general principles and laws which govern Medical Science; and by which alone, the many speculations & theories, concerning the phenomena of life are to stand or fall. In many instances, no Law has been discovered, no Experimentum Crucis, has been made which can determine their truth or fallacy. And many of these Laws, which by

one set of Medical philosophers are considered certain, are by others looked upon as contrary to the first principles of medicine and as proving nothing.— One set believing in one doctrine and another in another — which shows that 'There is something rotten in Denmark'. But there are a large number of medical men who belong neither to one side nor the other,— they are always on the fences; either because they do not understand the laws or they cant appreciate the value of having fixed laws in medicine —

Now we cannot manufacture these laws, as the Yankees do California Boots to suit the occasion, If the Laws do not exist, we cannot find them; but if they do exist, and I see no reason to say that they do not, who that has ever opened the book of science shall say that they may not be discovered?. Who can say that the time will not come when the medical science shall be as perfect as the sciences?— Must medical men be doomed to see their fellow mortals fall victims to Phthisis to Cholera, to fevers — and yet find no cause, devise no remedy?.

Medicine, after its first, and great object. viz. 'To heal the sick', and said Cicero, In nulla re, propius ad Deos

homines accedunt quam salutem homini donando," should be looked upon as pure science, which would pry into the laws of the human & animal economy. Did not the blood in the days of Adam course as freely through the veins of men, as it did in the days of Harvey and yet it was left to Harvey to discover the circulation of the blood? Shall human life go on to decrease, and human disease to accumulate, whilst natural science is doing so much for mankind in other respects?

Of the means by which medicine is to be renovated & perfected I shall not speak. It is true that we need some modern Aesculapius to arise, but I think that we more need a Modern Hercules to arise to clean out the Augean Stables of quacks & unstable doctors — but it cant be done by means of Hydropathy as Hercules did it — The improvements in teaching — and the more liberal ideas which are gaining ground in our medical institutions, must form an important element in its accomplishment —

In our days the young student is taught too much — Watch him as he balances himself on the sharp edges of our University benches, listening with open eyes and mouth as well as ears, to the astounding facts which are announced to us; but he soon grows indifferent to these things,

He that could be stuffed sufficiently with big words and big yarns, and thought he knew Anatomy when he actually cut open the dead negro, and saw the viscera, and found out there really were 6 & 30 feet of gut in his Bread-basket. but like the child when he bursts open the drum to find out what makes the noise, he begins to think that he dont know atall; as the saying is, 'he smells a rat' — he "has seen the Elephant", and now he wants the explanation & reasons. But I fear that it will be as it was in old times, when they "sought for signs, but there should no sign given but that of the Prophet Jonah".

It is a common error to discard entirely the study of the old Authors — Students think they know when in fact they have never reasoned for themselves atall — it is all done for them; They are made Chemists, Botanists, Surgeons, Obstetricians, Anatomists, practical & transcendental, Physicians, scientific and experienced too. And all this is done in the short space of time which intervenes between the sprouting of the hair on the os Pubis, up to the time when they become one of the sovereign people. But he is now a doctor, well stocked with ridicule — and ready & eager like a "nine day old puppy to bark at the sun" — Why what is it to him

that Dioscorides and Galen knew anything of medicine, or that Hippocrates & Galen are acquainted with disease they know nothing, but what he now knows; true. But if any of them writers were to ask him on his creeds - he could not give a sufficient reason for almost the simplest of his beliefs - For instance it is a good joke if one does happen to know that a woman has no prostate gland now what office does the prostate gland perform, what the spleen? He does know that he has either of them until he is told that he has them in an enlarged state.
Why is the idea so prevalent among the people that medicine is all humbug? It is because the doctors themselves hold the same doctrine - They say that people got along well enough in old times without so much knowledge & why cant we? The statement is false, and even if true it is not necessary to go to the ancients for the argument — Pray, what does the Hottentot know of the reflex actions of the spinal marrow, or the wandering Arab of the wanderings of the par vagum nerve.
The fact is that too many medical men are on the fence They are "Northern men with Southern principles" — "They believe what the Church believes; and the Church, what

what they believe" — That is they dont know, or dont care to know what the Church believes —

But I think that so far from Medicine being a humbug — it is a glorious science, and the Scientific Medical Practitioner, need not fear with a high head to extol that science to uphold the profession, and the legitimate members of it, and on all occasions to denounce Quackery & Empyricism Not that a dogged resistance should be denied to any thing like innovation, for this would defeat the true object — For all the chemistry in the world could not, say before that the experiment is tried, prove that jalap would purge or tartar Emetic vomit — They who style themselves as Rationalists are no better than the Empyrics — the one cries away with Systems and creeds, the other is swallowed up in his own opinions and dogmatisms. — Lord Bacon compared the Empyrics to ants, who lay by stores for their and use them, the Rationalists, he compares to the spider which spins its web out of its own body, but the Bee he says pursues a middle course, collecting her matter from the flowers of the field — and digesting & elaborating it according to her own native powers." Medical Practitioners should adopt the course of the Bee.

It is but little consolation to one patient to tell him that he is dying theoretically, like the emigrants who die in Quarantine, of whom Mr Van Buren has humorously remarked, that they are 'dying Constitutionally' —
The only way to arrive at truth is to adhere to some principle, to do one thing or another — And as was said of Old on a more important subject and occasion, "If the Lord be God, serve him, if Baal then him."
And in this way the members of the profession, instead of halting between two opinions, will become more united, and Consistency, as has been demonstrated to the world on a larger scale, within the last Century — "In Union there is Strength."
But, (I hope you will excuse the comparison), whenever the Old women hear a doctrinal sermon, they say, Oh its all very good, but we want the application, we want some gospel always at the end. So you may ask for the Tritis.
Now I think I may say without the fear of not being appreciated, that I have been peculiarly struck with Tritis — and I cant see how any one can study the anatomy and Physiology of the Tris, without becoming interested. For how the Doctor can theorize, he can

speculate, he can prophecy good and bad things; he can put his plans into operation, and he can have a demonstration of the truth & fallacy of his theories - by the success & failure of his plans - For here he has the opportunity of watching the daily progress of a most interesting disease - viz - inflammation of a serous membrane - which is visible to the eye - seen through the transparent cornea. I have not had the pleasure of observing Iritis in its incipiency, its middle and latter stages, nor the satisfaction of diagnosing, treating & curing it - And in fact it is these latter, that in any case, alone can give a man a just "reason for the faith that is in him".

Therefore I shall not treat of Iritis as I have seen the disease; nor as it occurs in this country, or in France, in Germany, in China, or in Kamschatka. Neither shall I give a clinical lecture on Iritis - For I have not the ability.

I believe that nothing was known about this inflammation until the year 1801 - when a treatise was written on the subject by one Schmidt - a German. So that neither Dioscorides or Hippocrates knew any thing about it. Now I dont mean to say that

Pritis is as practical a disease as Pneumonia, nor so Aristocratic as Podagra, it is not Lightning & fatal like tubercular Phthisis – and yet it is a practical disease it does occur to the rich, and may be fatal to the eye. It is as it were a key to the many phenomena which not long ago were as mysteries – and it seems to prove to me that the profession of medicine does not depend upon humbug & long faces, and shakings of the head, for its dignity and respect, but on certain invariable & fixed laws, the deductions from close observation and scientific reasoning.

I imagine that Newtons conclusions would have been the same from seeing the apple fall to the ground, had the apple been studded with diamonds, or had it fallen into the eye of a man or the mouth of a Divine. The attraction of gravitation is as certainly shown by the falling of the stone which is thrown in the air, as it is by the revolution of the planets around the sun –

Pritis does not constitute one of the trifoot of life, and yet how striking is the resemblance ~~between~~ of Pritis, its phenomena, its cure – to plenisy, a pericarditis I am inflammation of a membrane essentially the same,

The events of the disease the same, the indications in the treatment how similar!

In this disease there is found for the metaphysical, thinking German, for the inquisitive, prying Frenchman, and for the eternally contriving, fixing, doing & acting Yankee.

A man might stand free on the shores of California, and be as different to the gold dust which sparkled every where. He might gaze on the ~~head~~ diamonds which set off the head-gear of Queens, and say that it is nothing but Charcoal — But where is the man, the young man, that can stand the soft heaven-ly, and yet ye Gods! the dazzling, agonizing fire, pouring from the eyes of his sweetheart, and say with the preacher, that all is vanity of vanities!

And when we know that it is the Iris which gives to the eye its colour, its brilliancy, its softness & beauty; which has characterized the blue eyed maids of Northern climes and the dark eyed cradles of the south. And when we know that inflammation of the Iris will cause these combinations of majesty and beauty, to become dull and of a deadly hue, is it not to young student an

incentive to study this wonderful organ the eye, and par-
-ticularly the inflammation of the iris. Gentlemen you
must pardon this digression as doubtless all of you have
been bewitched by a pair of bright eyes, in days gone by.

The Eye is an optical instrument, The iris is pen-
-etrated in the centre, like the diaphragm of an optical in-
-strument — But for the purposes of vision - two things are necessary
first we must have a proper mechanical or optical arrangement,
through which the rays of light can pass;- and secondly we must
have the mental perception of these rays of light. It is for
the optician to say ~~that~~ what is the proper density and re-
-lations of the different media of the eye — to say what ef-
-fect ~~what~~ the conical or flattened ~~lens~~ lens will have
on vision and to devise the remedies - It is the office
of the physician to keep these in health, and relieve
their diseases - So the conjunctiva ~~diseased~~ injected — the
aqueous humor turbid, the ~~chrystalline~~ lens opaque, the nerve
of the diseased &c then is the province of the Physician, But
when a man has all these things perfect and pass from
disease, the perception, the power of recognising the ~~im~~
image, when depicted upon the retina, whether upside
down or not, belongs neither to Physician ~~to~~ nor Optician,

but to the great first cause of all life. And here all human investigation must cease; all we can say is that it is an ultimate fact, that we do see, but how we see we dont know.

The Iris is that little membrane, remarkable for its lustre, which is seen as plain as a nose in a mans face, unless it be eaten away by Syphilis, situated behind the cornea, and in front of the Crystalline lens, bathed on both sides by the aqueous humor, and dividing that portion of the eye anterior to the lens, into the anterior & posterior chambers. It has been called the Iris from its resemblance to the rainbow. The opening in the middle is called the pupil, or vulgarly the Apple of the eye. The surface (of the Iris) is plane & not convex, and the pupil should have a clean and well defined edge. Sometimes it is found slightly frayed, particularly in Brutes. The amount of light which is admitted to the retina, is regulated by the contractions & dilatations of the pupil.

The outer or ciliary edge of the Iris is bevelled and fitted into the ciliary ligament in front and the processes behind, that is, it is set in the ciliary body. The manner in which they adhere is not known; there is a true continuity of tissue and yet they may be separated by a little force, and on

The ciliary edge of the Iris is not continuous with the cornea. The form & size of the iris may be seen in the frozen eye. It will ~~sometimes~~ be seen, then that at the same point the cornea & Sclerotic are united in front, or externally; and the choroid and Iris internally: and the choroid adheres internally to the vitreous humor by means of the ciliary processes, and also the ciliary circle is attached to the capsule of of crystalline lens — This arrangement, and intimate connexion is the more important, as they are all liable to be affected in inflammation of the Iris.

Some anatomists think that ~~the~~ the Iris is a muscular structure, others that it is vascular & erectile tissue or structure — If it be muscular, there would seem to be two sets of fibres - a radiated set and a circular set. It is supplied by the two long ciliary arteries with blood — It is crossed by a serous membrane, the posterior ~~surface~~ of the Iris has been called the Uvea - from its dark appearance It is supplied by nerves from a ganglion; and these ganglia have been thought ~~to exert~~ to exert ~~a peculiar effect upon the~~ to exert a peculiar effect upon the vital functions, acting as a subsidiary brain — but if so it is not constant. In common parlance we say that the pupils are con-

-tracted & dilated; the say in poisoning by opium that the pupils are contracted, in poisoning by stramonium, they are dilated — If compression of the brain exists, the pupils are dilated — In amaurosis, which is a disease of the optic nerve they are dilated — Now what anatomical condition of the parts exists when the pupils are dilated, and what, when contracted.— I dont know, I have thought that contraction of the Iris caused dilatation of the pupil, & vice-versa —; that is that in dilatation of the pupil, the space between the two concentric circles of the Iris is made smaller, the inner circle being made larger, & the outer circle smaller, and at the same time the substance of the Iris here, what ever it is, being made thicker. Now if this does happen it looks to be like what takes place in the heart for instance, that is, it is muscular contraction. And if I mistake not it is this thickening of the Iris, that causes an objection to the employment of Belladonna previous to the operation for Cataract, which is opacity of the crystalline lens, and is seated immediately behind the Iris, — Belladonna having the specific action of dilating the pupil and causing this thickening, and rendering the Iris more liable to be wounded by the needle of the Surgeon

If this be true, then we must [redacted] consider the Iris in a state of relaxation during contraction of the pupil. Which would seem to say that light, which is the stimulus to the eye, would only have the effect of relaxing these muscles, and that Belladonna which we consider as a narcotic and paralytic, would have the effect of making them contract; Which is absurd. Again if we consider two sets of muscular fibres, — radiated and circular —, then we might say that the radiated fibres acted by their elasticity, simply by their physical properties and that the circular fibres (around the pupillary margin) were acted upon by their natural stimulus, light, — and thus they are made to contract, it being an entirely involuntary action; and then we would consider the Belladonna as exerting a narcotizing ~~effect~~ or paralyzing effect on these circular fibres and thus causing dilatation of the pupil. This seems to be very plausible; but how is it that this muscle can be kept under a constant state of contraction, as it must be when ever the light is shining upon it + without becoming exhausted.
In regard to the idea of it being a vascular and erectile structure, it may be so, it may account for the facts better than the other hypothesis. It is said that

under the microscope, radiated fibres alone are seen, and when the pupil is contracted that these fibres short out as it were; but when dilated, then they become flexuous, & bent upon themselves; now this would seem to favor the idea of its structure being erectile —

At all events the ciliary border is the fixed point, and pupillary border the moveable. Cruveilhier says that contraction is active and dilatation passive, which says, he favors the idea of its being a vascular & erectile tissue, but opposes its muscularity —

It is said that during sleep, the pupil is contracted, which is contrary to what I should expect — These changes in the Iris have been attributed to changes in the retina, but this is not sustained by the facts in the case —

Now, if is the Iris like the choroid coat, vascular, or is it a radiated muscle, the contractions of which, causes the pupil to dilate — Probably the light causes the fibres or tubes to elongate, and thus shut up the Pupil. The Iris does not, like muscles after death, contract by Galvanism, or by chemical stimuli.

In conclusion, you may say that the above is all — "Vox, et praeterea nihil"; — it may be so, but we all have

to pass through the days of Sophomorehood.

In inflammation of the Iris, there will always be some degree of sclerotitis, and conjuctis, the choroid coat and the retina are very apt to be affected, as also the Anterior Capsule of the lens. The sclerotitis often seems sympathetic, and the same may be said of the conjunctivitis which occurs when the disease has continued for any length of time. But Iritis may exist as the predominant disease, and be the part to which our attention would be chiefly directed upon making an examination of the eye. If the choroid coat and the retina become involved to any extent, there will be complete loss of vision, although the pupil were not to become closed up. But vision has been restored, when by an artificial pupil when there has been complete atresia of the Iris - showing that the choroid & retina had not been involved in the inflammation.

All authors seem to agree in observing certain morbid appearances, when we examine an eye affected with Iritis.

1st Redness. This redness existing in the sclerotica, and giving us Sclerotitis. This is characterized by radiated vessels coming from the circumference of the eye-ball, and uniting in a Zone or Belt around the cornea - and then

abruptly stopping through the sclerotica — probably to go to the Iris — These injected vessels are distinguished from the injection in Conjunctivitis, by their being, straight, radiated & not tortuous, but fine, hair-like and of a delicate pink hue. — Whereas in Conjunctivitis — they are scarlet, tortuous, and running in all directions. Often there are small patches of this sclerotic inflammation, which can be readily seen —

The next prominent object, is 2nd. The discoloration of the Iris itself, being injected with blood, and irregularity, immobility, and contraction of the pupil. Now, the pupil looks a little hazy — instead of being jet black, it assumes a milky or cloudy appearance — The Iris becomes dull, swollen, puckered, contracted upon itself, and the pupillary edge is retracted to the crystalline lens. These appearances are caused by what is called the effusion of coagulable lymph or plastic lymph. This lymph may be poured out to such an extent as to fill up the pupil and the posterior chamber, and to cover the anterior surface of the Iris — 3rd. There will be formed adhesions by this lymph, uniting the Iris to the capsule of the lens, to the cornea sometimes, and also bands of adhesions across the pupil

causing the pupil to be contracted & distorted. There are other symptoms of which the patient alone is conscious, — as dimness of vision, sometimes amounting to total blindness; — And pain, more or less severe, generally intense pain about the orbit, subject to nocturnal exacerbations.

There is also great intolerance of light & profuse lacrymation.

The Constitutional Symptoms also in Acute Iritis, are very marked, characterized by a ethenic, inflammatory fever; bounding pulse; increased heat of surface; and other signs of Fever Arising from local inflammation. These signs are not always constant, but they are all compatible with, and most of them necessary to the existence of Iritis. They are modified by the various causes, by the previous condition of the constitution, or by previous disease of the eye.

The most fertile cause of Iritis is exposure to cold & moisture in one who has been subject to rheumatism — Another cause is Syphilis, the patient having previously had Syphilis — it may exhibit itself as a constitutional or secondary disease in Iritis. 3rd The existence of Scrofula, but this is more apt to produce Corneitis from which Iritis may arise as a secondary disease. The Germans mention an

Acute or Early Iritis. A very common cause of Iritis is from violence done to the Iris, as in the operation for Cataract.

Besides the Acute variety - there is also a chronic Iritis - it may result in the same lesions, but the symptoms all come on slowly - It seems to occur in those who strain their eyes in the examination of minute objects.

As to the various stages of Iritis - I will merely say that we may have it coming on suddenly & and running its course rapidly, or it may exist for weeks before the patient is aware of it - & applies to physician on account of it - The first thing revealing it to him, being dimness of vision -

The Prognosis will depend upon the time that we see our patient, and the progress that the disease has made. If we see our patient early, the disease may be cured and vision preserved. If not it may terminate in loss of vision complete closure of the pupil or atrophy of the globe of the eye.

The diagnosis is often difficult - It is to be distinguished from the Rheumatic Ophthalmia - from Corneitis, from inflammation of the Capsule of Lens, from Retinitis. I will only remark here, that in these diseases there is always some degree of Iritis present. In Retinitis, however the

loss of vision and of the perception of light, is a more prominent symptom.

Of the Regular or Pathology of the disease. Often there is complete atresia of the pupil - and sometimes what is called cataracta lymphatica or false cataract will be left behind; sometimes bands of lymph will remain stretching across the pupil; these may be permanent or they may be removed by time and the proper remedies, after all inflammation has subsided. If pus and blood have been effused they will gradually be ~~effused~~ absorbed.

It will be impossible for me to give a more minute account of the symptoms and changes which occur in the progress of Iritis - unless indeed I were to copy them directly from the books; enough of which I have already done.

The next part of the subject that I shall speak of is the Treatment - I said above that I did not intend to give a clinical dissertation, and therefore in speaking of the treatment, I shall confine myself, not to the doses of the means, but to the modus operandi of the means employed; more to the indications in the treatment and the how and by what these indications are to be met, than the actual meeting and treating.

An Inaugural Dissertation

On Pneumonia

Submitted to the Examination

of the

Provost. Regents and Faculty of Physic

of the

University of Maryland

for the

Degree of Doctor of Medicine

By

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of Frederick County

Maryland

Pneumonia

Inflimation with its symptoms and treatment. its progress and resolution its sequela is one of the most interesting diseased actions the Medical Student is called upon to examine

Particularly is it so when affecting the lung- an organ. the proper performance of whose function is so vitally necessary to the preservation of health

Pneumonia - or inflimation of the pulmonary parenchyma is what I propose investigating with such conciseness as may be compatible with its importance, It may be single or double. thus occupying one or both lungs and it is also partial or general when the inflimation attacks a part or whole of the lung, Lobar and Lobular pneumonias are partial because confined to a single lobe or lobule

The experience of various Physicians shews a decided preference on the part of this specific affection to locate in the lower lobe of the right lung

Andral gives us the following table " of one hundred and fifty-one cases of pneumonia

noticed at La Charite ninety were of the right lung alone. Thirty-eight only of the left lung alone and seventeen of both sides at once. Fifty-nine other cases were presented by twins of which thirty-one were of the right lung - seventy of the left and eight in which both lungs were affected

By calculation we see that of these two-hundred and ten cases. one-hundred and twenty-one were of the right lung - fifty-eight of the left and some twenty-five only of both lungs. So that it occurs twice as often upon the right side as upon the left and not more than once in eight-times is it double

Pneumonia affecting both lungs is most frequently met with in infancy and old age. Thus Valleix and Chessnois observed 128 cases in infancy of which there were none on the left side - 17 only of the right lung and 111 of double pneumonias

Lobar and Lobular pneumonias are also more frequent in child-hood

All climates and countries are acquainted with this disease though not to the same extent

In certain sections of the United States where the exposure to cold moist sea winds is constant pneumonia is looked upon as a familiar malady whilst in some of the southern portions of Europe and Asia it is seldom seen, its causes are of two kinds - Exciting and predisposing, Vicissitudes of climate - sudden changes of temperature and alterations in the hygrometric state of the atmosphere - from a mild balmy and dry air to one that is cold rough and moist are probably the true exciting causes. Chronic inflammation of the lungs or of any other part constituting a permanent source of irritation - weakening and exhausting the system by interfering with the duties of its various organs may be considered as the predisposing. Thus pneumonia frequently supervenes upon Bronchitis. Phthisis. Hooping-cough etc. The low Fevers also when the seat of irritation is remote primarily from the lungs frequently become complicated with pneumonia

Surgical operations by their depressing effects on the constitution sometimes seem to act the part of predisposing causes. In the notices of

post-mortems passed upon forty-one surgical patients in the University College Hospital London - we find that the lungs of twenty-three were in the first or second stage of Pneumonia, all ages and both sexes are liable to it. Still-born infants have been found with their lungs solidified proving its intra-uterine existence

Having spoken of Pneumonia - as an inflammation - its local varieties - and its causes, we will now proceed to examine a case of three acute inflammation of the lungs

Most authors agree with Laennec in dividing Pneumonia into three distinct stages,

The First stage - is that of engorgement or splenization - so called from its resemblance to the spleen

The Second stage is that of hepatization, termed by Andral ramollissement rouge - red softening - because it wants the consistence of liver

The Third stage is that of gray hepatization or purulent infiltration, Andral calls it ramollissement gris - gray softening,

A distinguished pathologist - Stokes - has two

more stages than Laennec, this first comes before that condition of the lung called by Laennec Splenization. It is simply a high degree of congestion the substance of the lung is unnaturally dry and of a bright vermilion colour caused by the gorged arterial circulation, the second third and fourth corresponds with Laennecs three divisions and the Fifth — The formation of abscess is so seldom seen that we are almost inclined to believe it imaginary

Assuming Laennecs division to be the best let us examine minutely the three stages paying particular attention to the morbid anatomy and Physical Signs exhibited in each,

1st Stage — of engorgement — The lung will crepitate because still pervious to air, its elasticity is not destroyed as it will float on water, there has been as yet no breaking down of the air-cells they are only congested and are gradually filling with a muco-serous fluid that exudes from the parietes of the vesicles, When a section is made a frothy fluid with appear. composed of little air

bubbles and blood-serum, If the lung be examined in the latter part of the first stage it presents very much the appearance of spleen - hence the term Splenization

Position alone will account for many of those cases of engorgement which might improperly be attributed to Pneumonia, If the engorged portion be dependent all the circumstances connected with the death must be considered before an opinion can be formed, An elevated part engorged and perhaps friable is pretty sure evidence that inflimation had existed

The Physical sign denoting this stage has been called crepitant rhonchi and minute crepitation both mean the same thing, the latter we prefer

This minute crepitation which can be heard on the first examination. has been compared by different authors to various artificial sounds. Williams imitates it by rubbing a lock of hair between his thumb and finger. and Laennec likens it to the crackling of a piece of fine parchment when crumpled in the hands, This sign is pathognomonic

as to disease and place is not less fickle in its duration than important in prognosis, mingling with the vesicular murmur—at times masking it—and then yielding place to the smooth rustle of natural breathing—it clearly indicates the beginning advancement and resolution of the inflimation

With regard to the cause of minute crepitation there are two different theories. One supposes it owing to the formation and bursting in rapid succession of little air-bubbles, These bubbles are formed of the fluid contained in the small tubes and vesicles whilst the air is passing through and by exploding produce the sound

Williams attempts to explain it in another manner, The smaller bronchial tubes—says he—are pressed upon by the congested and swollen surrounding parts, This pressure by bringing the opposite sides together occasions slight adhesions between the viscid surfaces and it is owing to the breaking-up of these adhesions by the passing air and the consequent opening and shutting of the tubes that we hear the crepitation

Andral whose theory I first adduced disproves the conjecture of Williams in a way that seems perfectly satisfactory. When extensive degeneration and breaking-down of the lungs takes place, a sound is heard in the cavities called gurgling, in the larger tubes we hear mucous rhonchi in the smaller a mixture of mucous and crepitant rhonchi and finally at the terminal branches we obtain minute crepitation, Andral terms them respectively cavernous. bronchial and vesicular crepitation. They are all mere modifications of the same noise depending upon the consistence of the fluid and the size of the cavity in which the air bubbles explode

Puerile respiration is a sign to which Stokes attatches some importance in the first stage, it consists in loud and laboured breathing - the sound being making an effort to perform the work of the diseased, When the puerile respiration becomes loud and the crepitation obscures entirely the vesicular murmur we have reason to believe that the second stage has commenced

The second stage – of hepatization – ramollissement rouge – red softening. The lung has lost some of its properties – elasticity and permeability to air. It no longer floats on water nor does it crepitate when squeezed, a section of it presents the appearance of liver and if pressed between the thumb and finger is reduced to a pulpy state, The fluid quality of the recent pneumonic lung it may be well to bear in mind as distinguishing between the acute and chronic cases of solidification, If the scalpel be scraped over a cut portion thick blood in which yellow spots may be seen is collected, The yellow spots are small particles of pus and shew that the inflimation was advancing beyond the second stage, The fluid oozing out differs from what was noticed in the state of engorgement in having no air mixed with it

There are three physical signs indicating the second stage, — Percussion. Bronchial respiration and Bronchophony

Percussion over the solidified part is dull

generally on the second or third day, the same sound is elicited in Hydrothorax. How can we determine whether it is Pneumonia or Pleurisy?

By noting the time - whether the dulness was gradual or sudden in its approach - the appearance of the intercostal muscles - the epigastric and Hypochondriacal regions whether concave or prominent the latter being the case when there is fluid in the chest, By testing the Hearts position - displacements usually taking place when there is effusion. All these things being considered together with the general history will enable us to decide correctly

Bronchial respiration or breathing through the tubes that lead to the solidified portions is a peculiar whiffing or puffing sound and is easily distinguished, It is one of the most important signs of this stage

Bronchophony - or Bronchial voice is another equally important sign, It is produced by the voice being carried down the large tubes and transmitted through the solidified lung to

the ear, Bronchophony may be considered as confirming the indications of the other two, when there is much effusion a modification of Bronchophony called aegophony will be heard. So that in a disputed case of Pneumonia or Pleurisy we can be guided by this test. If the voice be guivering cracked or goat-like the evidence is on the side of Pleurisy if it be simply bronchial it would testify to the existence of Pneumonia

Thus far we have been enabled to trace the progress of Pneumonia by the aid of auscultation alone. Can we go any further. under the guidance of this important science? Experience answers in the negative, our information during the first and second stages was as certain as though the eye had been permitted to confirm the evidence gained by the ear,

Supposing the inflimation to be advancing and the lung already beyond the stage of hepatization, the pathological character of the third stage - Ray hepatization will prove of some interest

The lung is still more friable yielding to the slightest pressure, & when a section is made a fluid of a grayish-yellow colour exudes, This is pus which now fills the lung, The beautiful arrangement of air cells and tubes is destroyed and the formerly light and spongy organ reduced to a suppurated mass, This stage is generally met with on the 12th day

There are no physical signs peculiar to the stage of purulent infiltration, Stokes thinks that tubal breathing with what he calls sharp and distinct Muco-puriform rhonchus are indications of the third stage

Abscess in the lungs though constituting according to Stokes a separate stage — the fifth is rarely met with, The action of air upon the suppurating process being diffusive and directly antagonistic to formation of circumscribed collections of matter we do not wonder at the fact

Laennec in several hundred post-mortems found only five or six cases of abscess and Andral in the whole course of his investigations discovered but a single large and circumscribed abscess

Perhaps these few cases might be accounted for by supposing the abscess to have been more cavities in a phthisical lung which afterwards became the seat of Pneumonic inflimation, The lung during the third stage being filled with pus is it not probable that the matter would be poured into the cavity before or after death?

Future researches will prove what is now only surmise

Having gone through the three stages of Pneumonia and noticed the morbid anatomy and the physical signs of each, I will now examine the general symptoms. These are Pain. Dyspnea Cough. Expectoration and Fever

The pain is of a sharp stitching character and is augmented by change of position. cough. breathing etc. It is generally felt below the breasts and is most violent at the onset of the disease

The implication of the pleura is doubtless the cause as in case where the pleura was unaffected, no pain was felt

Pneumonia engrafted upon Bronchitis seldom

gives rise to pain, The inflimation by steating along the larger tubes and through the smaller to the vesicles seizes upon the lung proper whilst its envelope remains perfectly sound, occurring as the sequela of low feeders and the intercurrent Pneumonia generally are unaccompanied by much pain

It usually leaves the patient some time before the inflimation is arrested so that its departure must not be taken as certain evidence that our remedies are acting well

In the total absence of pain some degree of uneasiness and oppression will be felt about the chest

Dyspnea — another troublesome feature of this disease, is owing to the congestion of the air vesicles in the first place and increases as more and more of the lung becomes unfit for breathing, It is commonly not as severe as in bronchitis and can not be taken as an index to the degree or extent of the inflimation, It depends not only upon the degree and extent but upon the seat of the inflimation also, when situated in the upper

lobe the dyspnea will be more distressing than when the same degree and extent of inflamation occupies the lower lobe. The ordinary manner of breathing which the patient exhibits whilst in health qualifies very much the indications of this symptom.

The respiratory capacities of persons differ just as do their Physical powers, The breasts of some individuals are large and prominent heaving with a gentle swell as the lungs take but little exertion in admitting the necessary quantity of air, Those of others are small and contracted the lung being in its natural state just sufficient for the due aeration of the blood, Inflamation of the same degree and extent occuring in two such persons will be productive of very different results, The capacious chest though having a portion of its lung diseased may yet rise with its usual swell — because before there was more lung than absolutely necessary — and then will be little or no dyspnea, whilst the contracted chest with its lungs scarcely sufficient before the attack (from natural conformation

or the effects of previous disease) will shew signs of fearful dyspnea

The cough is not at all peculiar, at first dry as if there be any Bronchitis mucous will be thrown up

In the course of a few days, about the third an other symptom appears - Expectoration - It is to this the Practitioner must look as an valuable assistant in treating Pneumonia through the first and second and perhaps even the third stage, The Sputa - a term applied to the characteristic expectoration are in the first stage of a rusty or orange colour, They form a jelly-like mass capable of being decanted from the containing vessel, The colour is owing to the mixture of mucous and blood, and will be lighter coloured or red as one or the other predominates, The mixture in this instance is perfect differing from the streaked Sputa of Bronchitis or the unmixed blood of Haemoptisis, whilst the jelly-like mass can be poured from the vessel there is good grounds for believing the lung still in the first stage

As the inflimation advances the viscidity increases until the sputa no longer leave the vessel but remain sticking to the bottom and sides though completely inverted. Now it is that we fear the existence of the second stage, the sound on percussion becomes duller. the respiration more laborious and other symptoms combine to prove that the second stage has been reached

During the first and second stage the Expectoration is relied on with confidence but it is a matter of doubt whether it will indicate the final change

Some authors state that the sputa lose their viscidity and become watery resembling plum-juice during the stage of purulent infiltration, when the lung breaks-down. the debris are expelled and afford sure evidence

In strong constitutions pure pus is sometimes expectorated. the thin and plum-juice sputa are typhoid signs indicating a weak and prostrated condition

The sputa when present are so characteristic

that we may diagnose from them alone. The reverse however is not true. They are frequently absent. In Pneumonia of children and intercurrent pneumonias seldom have this sign perfect

Following a slight degree of chilliness heat of the skin is felt, it increases particularly over the chest where it assumes a peculiar pungent character. Heat of this kind when confined to the chest is relied upon with some confidence as a diagnostic sign

The pulse becomes hard frequent and contracted generally in step the patient be immediately bled a single copious blood-letting will change its nature entirely, If the inflamation advances to the third stage the pulse will be very frequent hard and small - it is then a thready pulse

Diagnosis. Having thus arranged the lesions and the symptoms of Pneumonia it is an easy matter to make the diagnosis

When called in it is ascertained that the patient has been exposed in some way or other. He complained of being chilly and afterwards of being hot

cases taken with a sharp pain and went to bed

On applying the ear a slight crackling sound is heard mingling with the respiratory murmur. The pulse is frequent and hard, If he gets worse the symptoms will increase. The pain will be more severe. The respiration distinct. On percussing a dull sound will be elicited and the ear can detect Bronchophony and Bronchial respiration, Dyspnoea before perhaps unnoticed will now be very apparent, He will speak quick and pronounce his words, About the second or third day the expectoration will assume its diagnostic character and make the case a plain one, Signs so distinct as the above when present can not be mistaken But there are cases having none of them or only one perhaps, There may be a total absence of pain apparently of dyspnoea and the expectoration is frequently wanting during the whole course of the disease, These cases are generally complicated or occur in children when the expectoration is simply that of

Bronchitis, These however are not true types of the disease and must be met by the practitioner with calmness - his attention being directed to the most urgent symptom

Concerning the duration of Pneumonia there seems to be some doubt, some say the average duration is ten days. others that it is from twelve to twenty-four - perhaps a fortnight is the truest average

The mortality is dependent upon circumstances beyond the Physicians controll, Louis speaks of it as being always a serious disease and lost twenty-eight out of seventy-eight patients whilst Bouillaud lost but two out of fifty cases of single pneumonia, and only one third of those having double pneumonia died in his hands, The circumstances alluded to as being beyond his controll and interfering so seriously both with his own success and the prospects of the patient. are first and mainly delay in the treatment and its being a double Pneumonia

Prognosis - If after the proper remedies have been employed we find the pain and dyspnea relieved - the pulse improved - the expectoration losing its rusty appearance and becoming catarrhal - the crepitation giving place to the vesicular breathing - the dulness gone and replaced by crepitation which will in its turn yield to the natural murmur - all these changes are for the better and little hesitation need be felt in giving a favourable prognosis, on the contrary if the Dyspnea increases the dulness occupies a larger space, the pulse becomes very frequent and weak, the expectoration is viscid adhereing to the vessel or watery and like plum-juice or perhaps suppressed from inability to discharge it. These symptoms with sometimes delirium - a peculiarly ominous sign would force us to prognosticate unfavourably

The patient becomes too weak to free his air tubes of the bloody mucous or pus which finally obstructs his breathing causing death by asphyxia

treatment, This in order to be successful must be early before the lung a respiratory organ has been destroyed before an actual disolution of tissue has taken place

If the patient be seen prior to the fourth or fifth day Blood letting will generally be the first remedy prescribed, The lancet is the best anchor of the Physician in this disease when taken in time, Experiments in Europe shew that early bleeding shortens the attack four or five days and similar ones instituted in this country were attended with like results

Louis expresses the opinion that Pneumonia can not be cut short during the first days The general symptoms Pain Dyspnea etc the contents may be relieved but the local phenomena "Crepitation etc for the most part continue to advance with no less certainty;

With this opinion of Louis we disagree believing that early and vigorous treatment with the lancet followed by tartarized antimony will often check the disease and restore the lung to its normal

State, as to the quantity of blood to be drawn
No one person can prescribe for another, The average
amount will in the first bleeding be from ℥xv to
℥xxx according to the extent of the inflamation the
state of the pulse and the constitution of the patient

Bleeding is employed for a certain purpose
and until that is accomplished whether the strength of the person permits we continue to let
the remedy act, The pain and dyspnea must
be relieved the pulse improved and it is only
when we see these happy changes that we
order the arm to be tied up,

In highly plethoric habits it frequently becomes
necessary to repeat venesection this should be done
without hesitation in case the symptoms demanded it,

Without reference then to Bouillaud who
bled coup sur coup as to any other man we
must bleed according to the indications

The type of the disease qualifies very materially
the necessity or even propriety of venesection

When Pneumonia is of a Sthenic form little

doubt need exist as to the propriety of the remedy, but as sometimes happens when the inflamation presents a typhoid character general blood-letting is seldom admissible, in such cases we are confined to local depletion by leeches and afterwards poultices or if the strength of the patient permits cups may be applied

During the first and second stages bleeding either general or local is admissable, By diminishing the quantity of circulating fluid it relieves the oppressed lung and by acting as a direct sedative upon the heats actions. it causes the blood to enter the pulmonary tissue lessened both in volume and velocity

In no disease are sound judgement and discernment so essential as in treating successfully the various forms that Pneumonia assumes, at times it may be necessary to deplete with one hand whilst the other is employed in administering stimulants - cordials. wine whey etc, what is life to one patient will be death to another and it rests with the Physician often to decide the important issue

After the first bleeding it may be necessary to give a cathartic, particularly if signs of gastric or bilious derangement be present, a dose of calomel and jalap or calomel followed by oil will answer

Tartarized Antimony as an adjuvant to the lancet is a valuable remedy, It acts by its derivative effects to the stomach from the lungs and by the powerful sedation it produces upon circulatory system, Like a 'corps de reserve' it comes in aid of the lancet after the first blow has been struck and by following up the advantage gained completes the victory

all its sedative effects can be obtained without evacuation of any kind, The stomach will probably sicken at the first dose but soon a state of tolerance will be established and it may be administered in large quantities

Adapting the size of the dose to the nature of the case from gr ¼ to gr ½ every hour may be given, when given in large doses green tea or a solution of white sugar should be employed as a vehicle with the addition of a little lemon

Wood places but little confidence in large doses of the antimony and so far as his experience goes objects to a free use of it, he says it is not as safe as the lancet and less manageable than the mercurial treatment. Small doses therefore are prescribed by him from the gr $\frac{1}{12}$ to gr $\frac{1}{4}$ every hour or two, we have authority however for going much farther than Wood seems disposed

Laennec gave as high as $2\frac{1}{2}$ gr every two hours. The safest plan is to commence with small doses and gradually increase when not contraindicated

Usually about the fifth day it is advisable particularly if the case be an obstinate one to commence the mercurial treatment. By virtue of its antiplastic properties mercury prevents those adhesions formed between the pulmonary and costal pleura and promotes absorption of the interstitial effusion, when its action in this way is admitted and when cases of difficult breathing through life are made so in consequence of the lung being tied down

or a portion of it remaining solidified we are not slight in slighting the means of prevention

The object is to get the system under the mercurial influence and according as the case may be urgent or the contrary do we employ an active or moderate plan of proceeding

Ordinarily two or three grains of calomel every four or six hours will suffice, it is better to obtain the calomel with gr ¼ or gr ½ of opium to prevent evacuation of the bowels

During a high degree of organic action the system resists the influence of mercury and then besides its internal administration the mercurial ointment should be employed

all that can be gained by the use of calomel is effected without producing ptyalism

There is no necessity for soreness of the mouth considered by some as alone indicating the full influence of mercury. Such a state would only increase the distress of the patient without augmenting the strength of the remedy

Wood recommends that after two or three

days when the force of the circulation has been somewhat subdued - a pill composed of calomel gr ii or gr iii, opium gr i and Ipecacuanha gr i be given every eight hours By this mode of treatment sleep is procured the cough rendered less harassing, the skin is favourably affected and the foundation of a mercurial treatment laid

Expectorants are also serviceable at times Mixtures composed of Syrup of Squills, Senega and antimony with the addition perhaps of one of the salts of Morphia frequently afford relief

Blisters during the active stage of Pneumonia are seldom resorted to. Besides augmenting the irritation already existing they interfere with our examinations when placed on the chest, but in Typhoid and Chronic Pneumonias when there is a tendency to sink blisters may act very well, they derive from the deep-seated inflammation as counter irritants and prevent the patients going off into a fatal coma by rousing up his sinking energies

In cases where the blister is applied it should be large — six by eight and sometimes eight by ten inches, with the proper size. Some authors recommend a waistcoat of blistering plaster, when applied to the extremities they are of little worth and seldom used

The treatment of the low cases of Pneumonia involves considerable skill, one must attend to the most urgent symptoms and combatting the tendency to death endeavour to stave it off, at one time strengthening his feeble powers with a stimulant and tonic as carbonate of Ammonia in conjunction with quinine, Wine whey, Brandy etc or rousing him from a state of lethargy by a large blister and then reducing a too violent reaction by the exhibition of our remedies or if necessity compells by a few leeches, The bowels of the patient must of course be kept open during the whole course of the disease, remedies given for other purposes usually effect this

A judicious regimen is scarcely less important than the medical treatment, strict attention must be paid to the air of the patients room it should be comfortable and equable, the diet should be of the mildest kind, at first gruel or toast water, the juice of dried fruits tea and toast, gruel, milk and finally the more easily digested meats

The convalescence when perfect will be short notwithstanding the amount of depletion but it must be watched with the utmost vigilance as an error in diet or exposure will cause a relaps that often proves fatal

There are some varieties of Pneumonia to which I have briefly alluded nor is it my intention now to dwell on them,

Chronic and Typhoid Pneumonia are sufficiently defined by their names, the former being of a sluggish character and sometimes the sequel of the acute and the latter being of a low type and accompanied with great prostration of the vital powers

The Chronic require the use of revulsants
blisters, the tartar emetic ointment and the
mercurial treatment, Bleeding if resorted to
must generally be local either leeches or cups

Typhoid cases admit of the same revulsant
treatment and demand the frequent use of
stimulants, Carbonate of Ammonia in a dec-
-oction of Senega has been recommended in
cases of Adynamic,

In both chronic and Typhoid Pneumonia gen-
-eral bloodletting must be practiced with cau-
-tion, Leeches followed by poultices over the
sites with depletion sufficient, circumstances
such as ever must be the Physicians guide
and by deducing from them their true
indications and applying the proper remedies
will he prove himself worthy of the confid-
-ence placed in him by a grateful world

An

Inaugural Essay

on

Epidemic Cholera

for

The degree of Doctor of Medicine

Submitted to the consideration

of

The Provost, Regents & Faculty of Medicine

of the

University of Maryland

By

D. C. H. Emory

Eastern Shore

Maryland

To

Wm. Power M. D.

Professor of Theory and Practice in the University of Maryland, as a testimonial of my regard for the able manner in which he has discharged his duties during the two past sessions.

&

To James Bradley M. D.

As a tribute of gratitude for his many valuable instructions both as a Friend and Preceptor.

This feeble essay is most respectfully dedicated

By

The Author.

It being incumbent on all who are candidates for the degree of M. D. to submit to the consideration of the Faculty of the School to which they are respectively attached, a dissertation upon some medical subject, which shall in some measure answer as a test of their proper acquirements; after mature deliberation I have concluded to write upon Epidemic Cholera. I have made this selection from a candid belief that there is no subject within the range of Medical Science more deserving of attention than this, particularly at the present time, when, reasoning from analogy every thing goes to establish the belief that we are once more on the verge of another outbreak of this terrible malady; in view of this fact it behoves every man in whose hands and to whose skill will be confided the lives and destinies of many fellow beings, to bestir himself to diligence, and to investigate thoroughly and assiduously the nature and treatment of this disease, so that when it comes and suffering humanity shall appeal to him for relief, he may be enabled to act promptly and with judgement to alleviate its pangs and to arrest its fatal tendency.

The etymological signification of the term Cholera conveys to the mind an erroneous idea of the disease in question, for although there are many strong points of resemblance by which it is closely allied to the common endemic or Sporadic disease — as in the simultaneous occurrence of vomiting and purging — abdominal pains and Spasm of the Stomach and bowels, yet the most distinctive feature of the latter - viz - "the discharge of bile" is entirely wanting in the former, except in the Stage of reaction when in common with the secretion of urine it is hailed as a favourable indication. Dr Elliotson viewing the impropriety of the term, says - if it were necessary to give it a name borrowed from another disease he would suggest the word leucorrhea as being more expressive of the nature of the peculiar discharges. Dr Wood on the contrary says, the term cholera may be applied to any complaint in which the characteristic phenomena are - simultaneous and repeated vomiting and diarrhea, with Spasm of the Stomach and bowels and occasional cramps of the external muscles. As it is utterly useless to reject a nomenclature which is now so generally received both by the profession and the people at large

Throughout the world, I shall ~~be content~~ not attempt to enumerate what is irremediable, but be content to adopt it though literally inapplicable.

This disease made its first appearance in India in the year eighteen hundred and Seventeen at a small place called Billa Bazar distant about eighty or ninety miles from Calcutta. A Hindoo was taken with violent vomiting, purging &c and on the second day expired in great agony; by the authorities of the place his death was at first attributed to the eating of bad fish and spoiled rice, but on the same day Seventeen others were similarly affected and died; the disease then increased to such an extent as to destroy one tenth of the entire population. It next attacked Calcutta and soon after broke out with increased mortality at the rich and Commercial town of Benares, where it is computed that not less than fifteen thousand died in less than three months. The English army encamped upon the banks of the Sinde under the Command of the Marquis of Hastings, suffered most severely and their condition is thus described by an eye witness, "D. Sat Sameson". "it was here that the disease put forth all its strength and assumed its most deadly and appalling form, the old and the young, the European and the native, fighting men and Camp followers, were alike subject to its attack and all alike sunk under its most powerful grasp;

nearly nine thousand were cut off in one fatal week. In the year eighteen hundred and twenty one it attacked the city of Muscat one of the principal commercial ports of Arabia, here six thousand died many of whom were not sick above a few hours. From India it spread to Persia, from thence to Russia, Poland and Germany and at the expiration of fourteen years it reached Great Britian, making its first appearance at Sunderland on the river ware. On the twenty sixth of March it reached Paris and destroyed between ten and eleven thousand in less these a months; it then pervaded the greater part of France. In the year eighteen hundred and thirty two it stretched across the Atlantic and on the eighth of June seized upon Quebec situated on the St Lawrence, and two days subsequently Montreal was attacked, and by the twenty fourth of the same month cases were reported in New York, which city sustained the loss of three thousand inhabitants. The disease then passed up the Hudson river and on the third of July appeared at Albany, nearly simultaneously with its appearance at the latter place Philadelphia was attacked and subsequently Baltimore. During the months of July and august it prevailed in several sections of New Jersey and Delaware. ~~Extending from the banks of the Ohio, it pervaded the neighbouring States of Tennessee, Illinois, Indiana and Kentucky.~~

On the first of October it broke out with increased violence at Cincinatti and towards the close of the same month New Orleans was visited. Departing from the banks of the Ohio, it pervaded the neighbouring States of Tennessee, Illinois, Indiana and Kentucky. At the latter part of October it appeared in its most appalling form at Campeachy in South America, here in one month four thousand out of a population of twenty thousand fell victims to the scourge; in one day four hundred were buried; such was the dismay of the inhabitants that houses were closed, streets were deserted and the Physicians either fled or secluded themselves - Coffins and graves were denied to some of the most respectable inhabitants, - bodies were heaped together and conveyed to the waters edge where they were partially imbedded in sand, - the bodies of several who attempted to escape into the Country were found partially eaten up by birds and beasts of prey. What is very singular during its ravages at this place, we are told that the susceptibility of those exposed to the malady, was dependant upon or modified by the proportion of impure or negro blood which they contained, for instances occured where all the domesties of large families were cut off and not one of the whites took the disease. Cholera then seemed to die away but afterwards appeared in Cuba and in different parts of the United States. Very recently this epidemic has again made its

appearance in Asia, taken a somewhat similar course to its former and now seems to be struggling against the influence of winter at the South western parts of this Country, differing in its first attack in the United States in seizing upon New Orleans instead of Quebec. I have merely taken a cursory glance at the history of this disease for to have entered into a minute geographical description of its progress would have been both tedious and superfluous. The foregoing facts go to prove beyond a doubt that they were the effects of one and the same disease evidently produced by one and the same universally prevailing cause, but concerning the true specific nature of which we are still ignorant, for neither the immense magnifying powers of the microscope nor the delicate test of chemical analysis have even been able to detect in the atmospheric air during the prevalence of cholera any agent or agents to which its deleterious influence could be attributed. Some have supposed that there was some electrical disturbance of the atmosphere to which it might be ascribed, and indeed argue very rationally in support of their hypothesis; now I believe from all accounts that there was some disturbance of the atmospheric electricity but know not whether to view it in the light of cause or effect; J.C. Atkinson writing in the London Lancet, mentions some phenomena which he observed during the prevalence of cholera in the Metropolis,-

– it was the immediate discharge of electricity from the body of a patient in the collapsed stage of that disease whenever any conducting substance was brought into contact with the surface, streams of electricity an inch or an inch and a half in length could be distinctly seen. Some person writing in one of our Baltimore papers last summer says it was observed in the year eighteen hundred and thirty two that the electrical machines would not act very readily, but this might have been owing to some contingent circumstances, it might have been noticed during a very damp spell of weather, for we well know that a moist atmosphere conducts and diffuses electricity so rapidly that it is exceedingly difficult to procure sparks from the electrical machine in a humid apartment, hence, the Operator always uses the necessary precautions to have the hall of exhibition perfectly dry. By some it has been ascribed to the influence of Terrestrial emanations by which the atmosphere becomes secondarily impregnated, Old Sydenham says there are general constitutions of years that owe their origin neither to heat-cold-dryness nor moisture but rather depend upon a certain secret and inexplicable alteration in the bowels of the Earth, whence the air becomes impregnated with such kinds of effluvia as subjects the human body to particular distempers so long as that peculiar constitution prevails. Dr Jas Johnson in his work on diseases of tropical climates (and which

has been highly recommended by our able Professor of Materia Medica for the excellent treatise on dysentery) says, – The more I have reflected on this subject the more I am convinced of the truth of Sydenhams Conjeture, for the capricious as well as obstinate course which this disease occasionally pursues are much more explicable on the principle of a terrestrial Miasm of an atmospheric or Contagious influence. Many have ascribed the cause of cholera to the influence of comets & planets, but this is entirely hypothetical. Of course it is not expected of me, a mere novice in the Science, to give a satisfactory explanation of this question, but I am decidedly of opinion that the true essential Cause resides in the atmosphere whatever may have been its origin.

Contagion, There are some and not a few, who argue very strenuously that the disease is propagated by contagion, these again there are many who deny that it is Contagious at all. With regard to this question I may say there have been many observations in this Country which tend to show that the disease is Contagious, on the other hand many cases have occured where we could not imagine Communication to have taken place. I believe that the disease may and has been propagated independently of Contagion, & yet I also believe that by the combined influence of the Epidemic cause and other Concomitant circumstances it may be communicated from one to another, of course we shall find a large

number of exceptions to its spreading, where we might, a priori, expect that it would spread. It differs from other contagious diseases, as Syphilis, itch, and small pox in the fact that it has great difficulty in attacking those who are in good health and well off, and therefore though thousands may be exposed to the contagium, yet they will be almost sure to escape. Now my reasons for thinking this disease contagious are drawn from facts too plain to be misunderstood or denied, it was noticed in thirty two and more particularly in the last prevalence of cholera in this country, that it seemed to spread in the track of human intercourse, and its attack was often preceded by the arrival of an infected ship, or corps of marching soldiers; Dr Wood attempts to explain why it preferred the courses of streams by supposing that its cause had an affinity for low damp and marshy situations, but this is a mere hypothesis, for if we are utterly ignorant of the cause how can we reason as to its affinities, such conjectures are of no weight at all; again, the disease generally proceeded slowly in a city a place where there were many individuals, as if from one to the other. Now let one be understood in the first place what I mean by contagium— it is a materies either solid or gaseous, given off by or from the bodies of persons labouring under a disease, which is received into the blood of another person

and gives rise to morbid phenomena which are similar to those under which the originally diseased person laboured; or strictly speaking the communication of the poisonous materies by actual contact. Dr Laycock thinks that the disease is more readily transmitted or communicated during a damp state of the atmosphere. I will not enter very minutely into any arguments to prove that it is contagious but merely state some facts which have been observed. In the American Journal of Medical Sciences (Vol. XIII, we find a most striking case recorded by Dr Dickson of Charleston South Carolina, — on the thirty first of October eighteen hundred and thirty two, the brig Amelia bound to New Orleans, after a tedious and stormy passage from New York, having sailed on the nineteenth of the same month, was wrecked on the beach of a sandy island about twenty miles from Charleston; the island previous to this was perfectly healthy, and resorted to by its owner as an agreable Summer retreat; at the time of the wreck there were only four persons on the island, but a large number of persons went down from the city to administer to the relief of the unfortunate crew, — when the brig sailed from New York the Cholera was raging there but none of the ships crew were seized with it until they had been out at sea six days, during the voyage which was wet and tempestuous they were much confined below; twenty four died on the way and six were ill

when she was stranded, of the wreckers, attendants, and guards who went down from the city to the island many were taken and not a few died of the disease. As neither the ships crew and passengers, nor the wreckers, and an additional number of whom had now gathered about the wreck under permission of the authorities, were willing to remain on the island under Quarantine regulations, eighteen men from the city guard under the Command of Lieutenant, were detailed to perform the duty of a Cordon Sanitaire in confining them there. These men were stationed between one and two hundred yards from the sick but on going to and from the landing they were forced to pass much nearer the building of one of the Kitchens, which was used as a hospital, nor was it possible to prevent them from communicating with the passengers who were dispersed over the island, now let us see the result - out of about one hundred and fifty persons collected on the island, twenty three died, of whom twelve were passengers. Of the four negroes on the island three died, one child and two adults; of the guard employed there, every man was affected more or less with the symptoms of cholera with the exception of the Commanding officer.

There are some who seem disposed to deny this as a proof of Contagion, but I think it demonstrates very satisfactorily the communicability of this disease; the island (as I said before) was perfectly healthy previously to the ship being stranded, the cholera was raging at

New York when the brig sailed, as soon as the brig touched upon the island the disease was communicated from the crew to those upon the island. Dr. Dickson says — the decline is now fully established beyond a reasonable doubt that cholera is importable, it may be conveyed from one city to another by a vessel, & it may originate during an unfortunate voyage on board a vessel which shall not only disease her passengers, but infect persons who venture on board of her in perfect health. The brig Amelia either left New York with a cholerick atmosphere filling her hole and cabin &c & her passengers and crew were previously infected with cholera and ready to be diseased, & cholera was in some inexplicable manner generated within her during her stormy passage. It is reasonable to infer that if the municipal authorities of Charleston had been so negligent of their duties as to have allowed the Amelia to have entered her harbour and lain at one of her wharves, she would have been to that city as what she was to the island, a focus of pestilence, and would have spread throughout the terrified population disease and death. Now it appears that not only the wreck of the brig, but the sick of the island were capable of communicating the disease to those who held intercourse with them, for the wreck was burnt on the eight of November, and new cases of cholera continued to occur until the seventeenth, not only among those who had been on board of her, but in some who had never visited her.

On the nineteenth of November the surviving passengers of the ill fated packet took passage on board the Liverpool for a southern port, and the disease disappeared. Now there cannot be a more striking illustration of the fact of contagion than this, even Dr Wood who is a strong Non-contagionist says this is one of the strongest he has ever seen in support of the notion of contagion. In Braithwaite's Retrospect part the eighteenth Dr Merryweather, Whitby:- says the following case seems to prove pretty strongly the contagious nature of the disease. In eighteen hundred and thirty two I was called upon to visit a man of the name of Storehouse, in Baker house yard of this borough who had just been landed from a ship. I found it a decided case of cholera, in a state of collapse, as cold as ice and of a leaden hue; this was the first case in town and imported; I remember well telling Storehouse's wife to be cautious, and not be too much about her husband as I was not decided about contagion; the result was the wife took the disease and died first. Here we have an isolated case imported into a town that was free from cholera and the very wife who was the nurse fell the first victim. In the same volume of Braithwaite we find several other very striking cases reported by J. G. French - who says "In 1832 I had the charge of St. James's hospital; a Matron was engaged - selected, among other qualifications, for the vigor of her constitution, and temperate habits; she was forty years of age, her duties

were those of a housekeeper, not of an attendant on the sick; she had been in the hospital for some weeks previously to the admission of any cases; the first case was that of a girl, who had been nursing her mother who had died the day previously of cholera; this patient died seventeen hours after admission, and was not seen by the Matron. The second case was Margaret Lidgate, aged nine, admitted on the eight July from the Burlington School at 1 P.M, the Matron immediately visited this child, sat with her, and rubbed her legs while she was in a state of collapse; about half past five the Matron (previously in excellent health) was attacked with cholera and died in thirteen hours and a half. The third case was that of John Fox, a labouring man, who was attacked while at work at Paddington at two P.M in August 1833, some of his comrades had become affected in this locality and died; he was brought home to Barn yard, Windmill St; his wife was attacked after nursing him two days, and subsequently three cases occured on the floor above that on which he resided. In the London Lancet of Sept 1848 a Subscriber who had the reports of the discussion of the contagion of cholera in the Westminster Medical society, mentions one or two very interesting facts which occured in a town in Scotland in 1832. The population of the place was about two thousand, the cholera was gradually spreading towards it, the authorities and inhabitants became alarmed; houses were whitewashed, disinfecting agents were used and patrols were stationed at all the roads

and by ways so as to prevent the ingress of all persons from the infected districts; the cholera raged fiercely on all sides; in one small fishing village, about five miles from the town out of a population of three hundred it was reckoned that about one half of the inhabitants were carried off by this scourge; yet in the town itself not one case occured. If we will look at the progress of this disease in our country during the past year we cannot doubt but that the disease is contagious, for instance the disease broke out in New York soon after the arrival of an infected ship and was gradually extending but as soon as strict quarantine regulations were established it disappeared; and if I mistake not, its ravages in New Orleans was preceded by the arrival of a ship containing cholera patients, from New Orleans the disease was communicated to Cincinatti and to nearly all the towns along the Mississippi river where the steamboats stopped. I was told by a young man (a student of the University) that two negroe men who assisted in burying an individual from one of the steamboats, took the disease and died. In one of our city papers mention the death of a man in Panama from cholera, he was buried in his cloak, two days afterwards several Indians examined the corpse, took the disease and died. I think the foregoing facts go to establish the opinion that Cholera

is undoubtedly contagious, now I do not say that the disease
was propogated throughout the world solely by contagion
for there are many facts which contradict such a notion,
but I believe it to have been the result of some universally
prevailing cause capable under certain circumstances of being
communicated from one person to another; unlike itch,
small pox and Syphilis it seemed to have a peculiar
affinity for those who were debilitated by previous disease, want
and intemperance, resembling ~~more~~ very much in its com-
municability the Ship or Typhus fevers, which seemed to
seek the abodes of vice and poverty and leave the rich and
prosperous to their sunshine and their fears; it seemed to
require for its propety of Contagion, the combined influence of
the epidemic cause and the influence of crowds, together
with any thing which tended to impair the vital functions
and favour the development of disease.

Various other notions have been advanced respecting the cause of
Cholera; one that seems yet to abide in the minds of many is- The existence of little
animalcule in the atmosphere, but I think this is refuted very satisfactorily
by the fact that the Microscope has never revealed them to the eye,
and also by the fact that Cholera appeared in Moscow during its cold winter

which would undoubtedly have proved fatal to unprotected animal life. But the most of Authors are now agreed that the cause resides in the atmosphere. It is the pestilence that walketh in darkness, and destroyeth at noon day.

There are many predisposing and exciting causes. Of the former may be ranked every thing which tends to impair the healthy functions and so to deteriorate the vital energies of the System, as to render it totally unable to resist the invasion of disease, and readily succumb to its influence, - as previous disease, intemperance, venereal excesses, depressing emotions, impure air &c. Very often the Epidemic influence seems to predispose the System and any exciting cause only called the disease into action. Among the exciting Causes may be enumerated any thing which can make a sudden and powerful impression on the System, through the medium of the mind, or through the cutaneous and digestive functions; of the 1st sudden and violent emotions, as grief, fear, anxiety &c, hence it seemed that those who were the most timid and fearful, were the most ready victims in this; of the 2d sudden exposure to a cold atmosphere, which tends to check perspiration and cause an afflux of blood towards the central organs; of the 3d any thing which would irritate the stomach and bowels,

– as indigestible articles of food, unwholesome drinks, as impure water or alcoholic stimulants, or even of very cold water when the body is warm and perspiring, drastic purgatives &c.
The epidemic influence was of itself often sufficient to produce the disease.

Symptoms. Perhaps there is no disease more appalling in its aspect or more alarming in its tendency, than a genuine Case of Cholera in its fully formed Stage.
The characteristic phenomena are excessive and repeated vomiting and purging, first of the ordinary contents of the stomach and bowels and finally of the peculiar and pathognomonic rice water discharges, a peculiar leaden hue and an icy coldness of the surface, extremely feeble and irregular pulse, ghastly countenance, great restlessness, epigastric pain, violent cramps affecting principally the muscles of the lower extremities and gradually extending to those of the trunk. All these symptoms are not present in every case, but when found they are perfectly diagnostic of this Complaint, there are many others occasionally found but their absence is no proof to the contrary. The disease sometimes comes on very suddenly without any premonition, the patient is suddenly seized with violent vomiting, purging, pains and

Cramps and very quickly falls into the state of collapse; but more frequently there are various premonitory symptoms, usually manifested in some derangement of the digestive functions or in some disturbance of the nervous system, usually classed under the name of cholerine. The patient feels uncomfortable, is languid, complains of a feeling of uneasiness and oppression about the epigastrium, he experiences various neuralgic pains, has diarrhea, his appetite becomes somewhat impaired, and has a foul tongue; these symptoms will sometimes subside spontaneously or very readily yield to proper treatment, but are very apt upon exposure to any exciting cause, and even if neglected without such cause to be aggravated into true cholera. The symptoms increasing in severity, the vomiting and purging become more profuse and the discharges assume the peculiar colour before mentioned, the pulse sinks rapidly, the extremities become cold, the whole surface bathed in perspiration and begins to assume a livid or purplish colour, the patient becomes exceedingly restless with a burning thirst and tormenting pains, violent cramps seize upon the external muscles usually those of the lower limbs, and gradually extend to those of the trunk and abdomen the muscles contracting into hard like knots, the features shrink, the respiration is preyed, the hands and feet become shrivelled as

if long soaked in water and of a livid hue, especially the nails which are sometimes almost black, the secretions of urine and feces are suppressed, in fact every symptom indicative of great prostration; even in the midst of these distressing symptoms, the external sensibility often remains acute, so that although to the hand of another the surface is cold, the patient complains of great heat and burning thirst and is continually calling for ice cold drinks; the intellect is sometimes more or less obtuse and the patient is seemingly unconscious of his danger. The patient is now on the very borders of collapse, but a step further and the pulse becomes imperceptible, the pulsations of the heart almost extinct, the respiration sighing and difficult, the countenance so changed and ghastly that the patient can scarcely be recognised by his most intimate friends, the head as if borne down by its own weight drops upon the breast and shoulders, and the hands hang motionless; heat leaves the surface which becomes covered with a cold sweat, the vomiting and purging become more profuse, sometimes the vomiting ceases just before the termination of the disease but the stools are passed involuntarily, the patient falls into a state of coma from which he can hardly be aroused, and if awakened suddenly relapses and soon after

becomes moribund. In some instances the patient retains his muscular strength to the last and suddenly rising with an expiring effort falls lifeless. The complaint is susceptible of a favorable change at any period either spontaneously or by the aid of proper treatment. If it is arrested before the stage of collapse the patient generally falls into a state of convalescence from which he speedily recovers with scarcely any embarasing symptoms but a slight diarhea or other slight derangement of the stomach and bowels; but if the stage ~~of the stage~~ of collapse comes on, the chance of recovery is materially lessened and if the patient survives the period is tedious and protracted, and is liable to frequent interruptions and relapses. One of the most favorable symptoms in any stage of the complaint is the appearance of bile in the evacuations. When the stage of reaction comes on there is observed a gradual restoration of the suspended functions, the pulse returns, the respiration becomes more easy, heat returns to the surface which assumes a more natural appearance, the secretion of urine and bile is restored, the vomiting ceases, the cramps and violent pains abate, but usually some headache is experienced with some slight febrile excitement, the diarhea continues for some time and convalescence is not fully established until often some days of doubt and uncertainty. I have endeavored to enumerate the most important symptoms presented by this disease as described by all who have witnessed its phenomena,

These Symptoms were noticed in all parts of the world and by them it was characterised as a distinct affection. All of the pregning phenomena are not invariably present in every case, thus in some instances the patient is taken with violent colicky pains and cramps and dies without vomiting a diarhea but upon examination after death the peculiar fluids of which the discharges consist are found locked up within the intestinal tube. Sometimes the cramps are comparatively trifling, then again they constitute the chief and most important Symptoms. In some instances the depression of the circulation is not noticed for some time and even febrile Symptoms show themselves. The intellect is some instances clouded from the commencement and there are occasionally evidences of determination of blood to the brain. Mr. Annesley says- " one Symptom I have always looked for as particularly marking this disease, and I have never seen a case of this epidemic wherein it did not exist, - is a burning sensation midway between the Scrobiculi Cordis and the umbilicus, precisely over that spot where the vermillion blush is invariably found after death; this is one of the first Symptoms that the patient is sensible of, and is generally felt before vomiting or purging takes place; whenever this painful sensation is accompanied with an anxious look and a general feeling of weakness and oppression even without vomiting and purging we may be certain the disease is at hand; at this stage the case is generally manageable if boldly treated.

The blood and the evacuations. The blood in this disease is generally black, thick and viscid containing less saline matter than healthy blood, in some cases it is so thick that it is difficult to procure it from a vein. It appears from the experiments of Drs. Thomsen, Clanny and O. Shaughnessy that the blood of advanced Cholera contains less water, albumen, fibrin and saline matter and much more of the red globules than an equal weight of healthy blood. Professor Power in his admirable lecture on this disease mentions a circumstance which seems to have escaped the observation of all other writers, viz. That the blood of persons in good health during the prevalence of cholera in this city in the year 1832 was much thicker than usual; he ascertained the fact by experimenting with his fellow students. Now almost precisely the principles which are found deficient in the blood are discovered in the alvine evacuations proving very satisfactorily that these consist of blood somewhat altered by secretion, the fact that the serum is poured into the intestinal canal accounts for the dark pitchy stale of the blood. It is also said that the blood contains urea, this is very probable when we know the secretion of urine is suppressed, which in health carries the urea out of the circulation as fast as it is eliminated. Thus we have seen that the fluid portions of the alvine evacuations consists of blood altered by secretion, the solid portions consists of fragments of the epithelium of the mucous membrane; this fact corresponds with the

post-mortem examinations of Dr Horner of Philadelphia who found that the epithelium as well as a layer of venous capillaries beneath was exfoliated to a greater or less extent in the progress of the complaint.

Anatomical Characters. If the patient dies in the stage of collapse there will generally be found evidences of a loss of equilibrium between the arterial and venous circulation, the arteries will be found almost entirely empty whilst the veins and right side of the heart will be found engorged with a black, viscid and imperfectly coagulated blood. Almost all parts of the body, the brain and spinal marrow, the substance of the heart, the abdominal viscera, the limbs, even the spongy substance of the bones will be found to exhibit signs of venous injection. The lungs contain little blood; and the spleen is sometimes remarkably small and dry. The peritoneum will be found dry; and the small intestines will present a rose or violet colour owing to the venous injection of their inner coats. In the American Journal of Medical Sciences Vol XVI, Dr W. E. Horner Professor of Anatomy in the University of Pennsylvania, publishes an account of the post-mortem examinations which he made in Philadelphia in August 1832. He says the object of these is to prove that in Asiatic cholera the following morbid anatomical characters are found in the alimentary canal. First — A copious vesicular eruption which pervades the whole canal. Second — A lining membrane of coagulated lymph, which exists in the small

intestines at least, if not in the Stomach and Colon also, and resembles in texture and mode of adhesion the membrane of croup.

Third.- Vascular derangements and phenomena which are confined almost exclusively, if not entirely to, to the venous system. Fourth.- An exfoliation of the epidermic and venous lining of the whole Alimentary Canal, whereby the extremities of the venous system are denuded, and left patulous. I shall now proceed to enumerate some of the appearances which he noticed in the various Autopsies which he made. His investigations were principally confined to the Thorax and abdomen. The peritoneum was almost invariably dry, Stomach generally contained a sero-fibrinous fluid, and its inner coat was generally tinged of a reddish hue; the small intestines generally contained a serofibrinous fluid, sometimes they contained mucus and blood a mucus and pus, and the mucous membrane was found injected to a bright red colour, very often the small intestines were lined with a layer of fibrine. The large intestines generally were not much altered, sometimes the colon contained the same sero-fibrinous fluid and its mucous coat was found of a pinkish hue. Spleen generally sound. Urinary bladder most usually contracted and in some few instances contained a small quantity of urine. Kidneys contained no urine and were occasionally filled with a purulent ~~matt~~ fluid. Liver most generally sound.

Gall bladder in the majority of cases was filled with mucus deeply tinged with bile. The lungs generally healthy, but sometimes injected especially at the posterior portions. Heart, the coronary veins distended, right auricle and ventricle contained the usual quantity of blood, this was in one case. Veins generally filled with blood. These appearances were observed in persons who died in the stage of collapse, but after death in the stage of reaction, the phenomena were entirely different, but varied with the length of time which had elapsed from the commencement of that stage.

The bladder had now resumed its dimensions, the visible condition of the peritoneum if previously existing, had disappeared, the venous injection had partially or wholly given away, the blood had lost some of its blackness and viscidity, though still not restored to its healthy state, and the rice water contents of the bowels had given place to bilious and bloody fluids. Instead of the dark shade of venous congestion, there was now the vivid redness of conjunctival inflammation in the alimentary mucous membrane, which was also sometimes softened or otherwise changed; and the mucous follicles exhibited marks of incipient ulceration. Lesions in the various nervous centres and their investing membranes, such as might be expected from the symptoms during life, and not unfrequently decided evidences of inflammation of the lungs, were observed.

Nature. So many theories have been advanced respecting cholera that it would be extremely tedious and utterly useless to enumerate them. So universal was its prevalence, so formidable its character and so alarming its results, that the attention of the Profession throughout the world has been directed towards ascertaining how the cause operates, through the medium of what system, or by the influence of what organ does the deleterious agent exercise its pernicious tendency. By many the disease is supposed to consist essentially in an irritation or inflammation of the alimentary mucous membrane. Others have associated with this pathological condition as a result of the same cause, a deranged state of the nervous functions, especially those of the ganglionic system; and others again have rejected altogether the notion of gastro enteritis, ascribing the phenomena to the combination of a sedative action of a specific cause upon the functions of organic life, with an irritant action of the same cause upon those of animal life.

In the London Lancet for January 1848 page 71 Dr Ogier Ward says the idea of the nature of Cholera that seemed most consistent with its symptoms, and with the effects of treatment, was, that it is the prolonged, cold stages of a peculiar form of fever, presenting more analogies with continued than an intermittent fever, the effect of a poisonous miasm which if

very intense, destroys the patient, without the occurrence of any active symptoms in a few hours; but in other Cases induces a gradually increasing Congestion of the internal nervous System, which relieves itself by the effusion of a serous fluid into the Stomach and bowels, which is as speedily removed by the actions of vomiting and purging. The blood thus deprived of its serum becomes thick and black, and is deprived of its vital properties to such a degree that, unable to ~~circulate~~ imbibe oxygen in the lungs, it ceases to stimulate the heart, which organ is thus unable to propel the blood to the extremities or through the lungs. Mr French of the same number, says, "as to the essential nature of the disease, I believe it consists in a poisonous influence which is exerted directly on the heart, depressing its actions, for these reasons:-

1st. The heart's action is always diminished in this disease.

2d. No essential lesion of any other vital organs really exists.

3d. All the other Symptoms and physiological conditions admit of explanation on this hypothesis. He says the first argument will be admitted by all persons. It will also be admitted that the functions of the brain are remarkably well performed until the very period of death. Then there is no asphyxia for these reasons- the mechanical apparatus is undisturbed. He further says, blood in its normal state is intended to be constantly circulated with a regulated amount of force; if this force be exceeded, we find that the fluidity of the blood is increased, that it acquires a brighter hue, and that it possesses the power of coagulating more firmly when stagnant. The converse of this obtains with

diminished free of circulation; to this alteration in the constituents of the blood is probably owing the absence of fibrinous deposits in the heart and vessels; the retention of its homogenous condition, and it's adaptation for the readmixture of water during reaction. So soon as the baneful effects of the poison shall cease to be exerted on the system. Thus to sum up:- In proportion to the free with which the circulation is controlled, either death results, or the blood is diminished in quantity and altered in quality, by a secretion from the alimentary canal - the overwhelming effects of sudden congestion and fibrinous deposits being probably thus prevented.

Many believe that the blood is primarily affected and that through it the poisonous material is carried to every part of the system, producing by the changes effected in this fluid the various phenomena. The blood in Cholera is universally admitted to be the seat of most extensive and very early changes; indeed so intimately are those changes connected with the character and progress of the symptoms, that many writers, ~~with~~ advocate the doctrine of the blood being the first recipient of the cholera poison; and that the symptoms which follow are but the results of the changes effected in this fluid and their reactions. In the London Lancet for February 1848 page 145 we find an article in connection with some notes by Dr Parkes. The Author says, what is then is this common cause to which these different lesions can be referred? It is a poison acting through the blood on each of the great organic systems - a statement which if it cannot be

proved by direct experiment, is rendered almost certain by the evidence of reason: for example Cholera is not a disease of the cerebro-spinal system; the intellects are clear – sensation and volition are unaffected – the spasms are but secondary results of a primary influence, to which, as already shown, they bear a direct relation; we have no evidence of any special affection of the ganglionic nervous system; or if we have, supposing the excessive exhalation on the one hand, and the suppressed secretion on the other, as results of deranged action in this system, we cannot conceive that any agency excited, or otherwise than by some external influence which can act through the blood alone. Neither is Cholera a disease of the respiratory and circulating systems. The disease commences, and these systems are at first unaffected; it may progress even, in favourable cases, without their functions being seriously implicated. Dr Parkes says – In favour of the view that the poison of Cholera is inhaled into the lungs, and acts chemically on the blood in the pulmonary capillaries it may be alleged that the first effects of the poison are often of the kind which would be produced by some impediment to free respiration; slight dyspnoea, tightness across the chest, a feeling of anxiety and distress from some lessening of aeration, an acceleration of the respiratory movements, are very usual symptoms.

Dr W.C. Warner looks upon Cholera as an acute inflammation of the mucous membrane of the whole intestinal canal; he says, "the copious secretion of fibrine proves that this action is not a simple acceleration of the circulation, but an actual inflammation; this inflammation having reached a certain degree, and a certain duration, is followed by sloughing of the membrane itself, that is to say, the part where the most important actions occur, to wit, the superficial nervous layer. Under such overwhelming circumstances of disease, can we wonder if the external symptoms of inflammation do not exist, that the inflammation instead of acting as a stimulus, as in common diseases, so as to diffuse the blood more rapidly towards the periphery of the body, increasing the heat of the skin and the volume of the arteries in the limbs &c. should on the contrary prostrate every action of the system, except on the surface where itself prevails. "The rapid and excessive evacuations produce as respects the volume and force of the circulation, precisely the same results as profuse haemorrhage; in viewing the relation of a surface so vascular and so extensive with the entire circulation, its proportion so large, that even a priori, the fact of universal flusion in it being stated, we might conjecture the result in terms not very different from the actual event. He says the epidemic nature of cholera, the fact of it's subjecting an entire community to its influence under some symptom or other, wherever it appears for the first

time, shew analogies with exanthematous diseases, which go far to establish the opinion, that cholera is really what those vesicles tend to shew, - an internal exanthemata itself. Dr Ward rejects the notion of it being a pure gastro-enteritis. He says, - that an irritation existed in the stomach and bowels can scarcely be doubted. How else explain the great abdominal uneasiness, the frequent burning pain in the epigastrium, the antecedent diarrhea, nausea and vomiting. How else, explain the actions of the various exciting causes, most of them of a directly irritant character? Was it not by producing or augmenting irritation that indigestible articles of food, and acrid Cathartics so often induced an attack of the disease.

He says that the nearest approach to a rational explanation appears to be that which considers it generally relative to the system, especially to the circulation, but irritant to the alimentary mucous membrane. Dr Ward says it resembles very closely the poisonous action of tartarized antimony.

Treatment. Treated in the early or premonitory stage this fearful disease could generally be arrested by astringents and medicines which tended to promote the secretions. But in the stage of collapse, the whole Medical Materia ~~Medica~~ was exhausted to find some remedy which might act as a specific, to arouse the languid powers of the prostrated system

Thus the following fifty remedies have been recommended by different writers of the London Lancet:- Creasote; petroleum; warm baths; brandy; chloroform; bleeding; tartar emetic; hot air baths; acetate of lead with opium; transfusion; Calomel; inhalation of oxygen gas and atmospheric air; quinine; opium; injection of saline fluid into the veins; laudanum and spirit of ammonia; charcoal; maple sugar and lard; mercury with chalk and laudanum; cold water and lime; camphor and laudanum; nitrate of silver; Calomel and opium; cupping; laudanum and brandy; saline solutions; bismuth; bleeding from the foot in hot water; Cannabine; terchlorid of carbon; croton oil; immersion of arterial blood; musk; nitrous acid; naptha; ether; soda water; electricity; chlorid of sodium, carbonate of soda and oxymuriate of potash; oil of turpentine; effervescing mixture; asafoetida; mustard emetic; cayenne pepper; Carbonic acid gas; Calomel and muriate of morphia; galvanism; liquor potassae and brandy; cupping; Calomel and Camphor; the reeking skin of a just slaughtered sheep. The indications for treatment in the first and second stages of the disease are to arrest the profuse evacuations from the stomach and bowels; to restore the suspended secretion of bile; to relieve the gastro-intestinal irritation; to equalize the distribution of nervous influence, and to support the general strength; all these indications are generally very promptly and happily fulfilled by the employment of Calomel and opium in small and repeated doses, combined when the discharges are

very proper with acetate of lead, and in addition if this should prove insufficient with other astringents, as kino, catechu or the extract of rhatany. Some have recommended large doses of opium, but this is obviously contrary to reason for as Dr Wood very justly remarks its narcotising effects are very injurious by obtund-ing the nervous system below the point of necessary responsi-bility, and thus inducing torpor and even coma, and favoring congestion of the brain and other internal organs. Calomel probably produces its beneficial effects in two ways- by allaying gastric irrita-tion and stimulating the hepatic secretion. Acetate of lead by its astring-ency and its sedative influence upon the mucuous membrane.
During the administration of these remedies the patient may be allowed to drink freely of cold carbonic acid water which tends to allay thirst, and quiet the stomach; or if this is not convenient ice water or the patient may swallow small pieces of ice. In cases requiring stimulation of the aromatic spirit of ammonia will be found useful; at the same time a sinapism of pure mustard should be applied over the epigastrium. For the purpose of exciting heat of the surface and equalizing the circulation and nervous excitement various measures have been recommended and some of them lauded, such as, warm baths, mustard pediluvia, friction by means of the flesh brush, warm towels together with rubefacients.

In the stage of collapse the indications are the same, with two additional; namely to check the excessive sweats and to supply the loss of watery fluids to and salts to the blood. Every thing that can stimulate both internally and externally has been recommended; Sinapisms may be applied to the abdomen and extremities, and cayenne pepper and brandy, oil of turpentine, tincture of camphor, liniment of ammonia &c over the surface of the body. To restore the loss of fluids and salts the patient should drink freely of cold carbonic acid water, with bicarbonate of soda in solution, weak animal broths, iced water, gum water &c. and injections of salt water and laudanum may be thrown up the bowels. In the stage of reaction the treatment must conform to the circumstances of the case. I am induced to believe and intend if the Cholera should come again, to adopt the plan of treatment recommended by Dr Joseph Ayre of Hull. He succeeded in saving one hundred and seventy six patients out of two hundred and nineteen; there were of the balance who were dead or dieing thirteen, those who were neglected nineteen, those who had previous disease two, those in whom dropsy of the brain supervened five, relapsed four. His ~~state~~ treatment consisted in the administration throughout the complaint of two grs of calomel and two drops of laudanum every ten minutes. His statement is well authenticated. My Preceptor Dr Jas Bordley and Dr Dulin of this city intend to adopt it, should they have occasion for so doing.

A Report of Five Cases
Submitted to the Examination
of the
Provost, Regents, & Faculty of Physic,
of the
University of Maryland,
for the
degree of Doctor of Medicine
by
McCarty B. Melvin.
of Virginia.

To the Faculty,
Of the
Maryland, Medical, Institute,
as
A mark of personal esteem,
and
A sense of high regard
for
their moral & Intellectual attainments.
these
Reports are Respectfully Inscribed
by
the Author,

Page 1st (Acute Bronchitis)

Case 1st. Jan. 18th. 1849.

Roger Hile Act. about 35 yrs.
a stout muscular man of low stature,
a labourer on the rail road.
entered the Lombard St. Infirmary,
Jan 17th. was treated for Pneumonia
last Spring at this Infirmary, antior
to this date, had usually enjoyed
good health. He was troubled
with slight cough sometime previous
to the 13th. was induced to stop work
on that day owing to general indis
position. was attacked with a sense
of chilliness, and pain in the head,
followed by fever, and loss of appet
ite. with the some increase of cough,
at present He has very urgent dysp
noea, face flushed. lips livid,
tongue coated with a whitish fur
in the centre, red at the tip & arou
nd the borders. pulse 132 ——

2d "

respiration 48. skin hot & dry. severe head ache and pain in the chest on the Left side, expectoration copious, a little rusty & tenacious, slight dullness on percupsion over the lower portion of Left Lung, with some mucous rales. He was bled to ℥xxx. on admittance which produced slight syncope, it presented a cupped & buffy appearance, He was ordered cal grii. Opii gr ½. Ant. Tart. gr 1-8. to be repeated every four hours,

Jan 19th " had two alvine evacuations during the night, continue the same powder every four hours. He was bled to ℥xii, and cupped between the shoulders, slightly buffed. has considerable dyspnoea. complains of severe pain in the head. Pulse 112, full & strong. lips somewhat livid,

Expectoration copious of the same consistance & colour. pain in the chest. Still continues, cough increased. tongue presents the same appearance, has no appetite, mucous rales very distinct in left lung with Bronchial respiration in the poste rior region of both, slight dulness at the summit of both lungs. On summing up the general symptoms and physical signs in this case we have evidence of acute Bronchitis complicated with slight Pneumonia, the rusty coloured sputa and partial dullness over the chest. are some of the Pathognomonic signs of Pneumonia, but the presence of mucous rales which are well marked in this case, with clearness on percussion over the greater portion

of the chest in combination with other symptoms present, are characteristic of acute Bronchetis.
Jan 20th has slight dyspnoea, and considerable cough, pulse 90 expectoration about the same, still complains of pain in the left side, slight dullness at the summit of both Lungs and lower portion of left, mucous rales very distinct.
Jan 22nd some evidence of improvement this morning in his general appearance, has less cough, expectoration not so copious & tenacious, more of a mucus character & consistance, pain in the chest slight, has no head ache, pulse 95 full & strong, lividity of the lips disappearing, appetite improving, had two alvine evacuation during the night & two

this morning. no perceptible change in the Phyical signs.
continue the same Powders.
Jan 23rd Pulse 80. soft + regular. no dyspnoea. respiration easy. skin moist. no head ache. Tongue cleaning. expectoration not so copious. of a muco, transparent, character. still complains of slight pain in the chest confined to the left side. fine crepitant rales. over the posterior and middle portion of the chest. dulness very much diminished at the summit. and lower portion of left Lung. slight respiratory murmer over the anterior portion of right. Jan 24th gums + mouth very sore from the effects of mercury. discontinue its use. face considerably flushed. no dyspnoea. Pulse 80 soft.

and regular. pain continues in the left side. no appetite. rest very much disturbed during the night from coughing. expectoration about the same. tongue moist & nearly clean. Physical signs about the same. ordered Nitrate of Potapa & Dovers powder.

Jan 25th " no evident change in his general appearance still complains of slight pain in the chest. Pulse 80. soft & regular. rest not so much disturbed. no change in the expectoration. salivation the same. respiratory murmur very distinct over the right side, lungs nearly clear at the summit. —

Jan 29th " continues to improve. gums & mouth sore & tender. Pulse natural. complains of no pain in the chest. cough not so bad.

Respiration easy. appetite good. Physical Signs present no material change. —

Jan 29th complains of no pain in the chest. Tongue natural, pulse 80 soft & regular. very slight cough. very little expectoration, muco, transparent. soreness of the mouth & swelling of the face nearly subsided. clearness on percupion over both sides of the chest, a return of Respiratory murmur in both Lungs. no abnormal sounds present.

Jan 30th convalescent. —

Case 11, 8th (Acute Pneumonia)

Mikel Donoley Act. 25.

Of low stature muscular & well formed, sanguineous temperment, was employed as a labourer on the rail road, habits irregular, makes use occasionally of intoxicating drinks, entered the Tomb. St. Infirmary Jan 19th. Jan 20th. Pulse 100. full & strong, slight dyspnoea, moderate cough. face very much flushed, tongue slightly furred. considerable thirst, complains of sharp pain in the right side on taking a deep inspiration this pain is felt at the base of the lung, and may be the result of lymph effused in that region. Sputa not very copious. somewhat rusty. previous to the present attack He has enjoyed sound health, was troubled with slight cough a week previous to his illness, on Jan 13th.

(9th)

He was siezed with a chill followed by slight fever. took a saline purgative on that day which produced two or three copious evacuations, — on admittance He was bled to ℥xxvi. and cupped over the Rt. side. and ordered Antim Tart. & Tinct. Opii a few drops. Physical signs give us clearness on percupion over the whole region of left Lung. marked dullness over the lower ⅓rd of Rt. with intire absence of respiratory murmer, bronchial respiration very distinct in the left + upper portion of Rt. a blowing or tuber sound in the middle and posterior portion of Rt. Lung.

From the present symptoms, march, of disease, & Physical Signs, in this Case, our diagnosis cannot be very obscure. marked dullness in the

Right Lung with bronchial respiration & rusty coloured Sputa in combination with general symptoms point out to us the existance of acute Pneumonia in the 2nd Stage. dullness may result from Empyema & Pleurisy and some other forms of Chest disease, but this State rarely exists to any extent without displacement of the Lungs or Labouring viscera. and bulging out of the Intercostal spaces. our diagnosis from Bronchitis may not be compounded. dullness on percussion, with bronchial respiration, and rusty coloured Sputa. (add to these crepitant Rales,) are sufficient signs, to form a differential diagnosis.

Jan 22d Slight improvement in his general appearance. Pulse 96, Soft & regular. Skin moist, has slight cough.

still complains of pain in the Rt. side on taking a deep inspiration. — expectoration copious, viscid, & rusty. considerable thirst. tongue about the same, respiration 25. bowels moved once during the night. bleeding repeated last night to ℥xii. continue the Antii Tart & Tinct Opii. every three hours. very great dullness — over the anterior & lower portion of right Lung. Bronchial respiration in the left and upper portion of Rt. with blowing sound in the midle & posterior portion of Rt.

Jan 23a. Pulse 80 full & strong. Sputa presents the same appearance. pain still present in the Rt side considerable thirst. no dyspnoea. slight cough. sleeps moderately well. perspiration very profuse.

Jan 24th. skin dry & hot. Pulse about the same. tongue cleaning. no dyspnoea.

pain in the side somewhat abated. rest not much disturbed. very slight appetite, expectoration viscid, not so copious & rusty. less dullness over the lower portion of Rt Lung. bronchial resp to ~~same~~ the same. slight respiratory murmur in left. fine crepitant rales. in lower portion of Rt. more distinctly heard at the end of inspiration.

Jan 26th. complains of being very weak, respiration easy. appetite improving. very slight pain in the Rt side. expectoration very much diminished, of a muco. transparent character. bowels inclined to be constipated. ordered a purgative yesterday which operated well.

Jan 27th. pulse weak respiration easy. skin moist. appetite good. considerable thirst. physical signs somewhat modified. fine crepitant rales in the —

Posterior portion of Rt Lung. dullness very much diminished in Lower portion. clearness on percussion over the left. with respiratory murmur.
ordered an Infusion of Serpentaria.
Jan 29th " no unfavourable sympt. present. complains only of weak resp. pain has left the Rt side. appetite good. ~~xxxx~~ expectoration of the same consistance. pulse natural. clearness on percussion over the greater portion of the Chest, over the Lower portion of Rt Lung there is slight dullness a return of respiratory murmur in both.
Jan 30th " convalescent.—

Case 111 (14) (Typhoid Fever)

——— A Sailor Act 25 entered the Lombr. St Infirmary June 12th. states that He was compelled to discontinue work several days previous to his illness. owing to general indisposition, He was attacked with severe head ache. followed shortly by Epistaxis, a sense of lassitude soreness in the limbs, loss of appetite, and slight diarrhea.

June 13th. extreme prostration of the whole system. skin hot & dry. tongue coated with a brownish fur. eyes injected. with dullness of expression. teeth & gums slightly encrusted with dark sordes. great difficulty of hearing. Pulse very frequent & feeble, a few rose spots perceptible upon the abdomen. slight tympanites. tenderness and pain upon pressure over the right Iliac region.

ordered an Alkaline Solution, with

an expectorant, and ~~his [illegible] to be [illegible] with~~ Hydrag. cum creta.

June 14th. Lying on his back great prostration of system. Pulse very frequent & feble. subsultus of the facial muscles. dark sordes about the teeth and gums. tongue very dry and coated with dark brown fur. eyes very much injected. Pupils contracted. features sunken of a pale ashy appearance. diarrhea increased. very considerable tenderness & pain upon pressure over the right iliac region. slight tympanitic distention. skin dry & hot. considerable coma. rose spots more distinct. a fine crepitant rale in the Bronchial tubes.

From the present symptoms in this case our Prognosis must be very

Unfavourable. the extreme prostration, dark sordes about the teeth & gums, great cerebral disturbance, with frequency & feebleness of pulse. are diagnostic symptoms of a very low grade of Typhoid Fever, closely assimilating the most prominent and characteristic symptoms of ~~the~~ Typhus ~~Fever~~ Fever.

June 16th. Pulse 140 dicrotic. very feeble. eyes half closed and insensible. low delirium. teeth & gums present the same appearance. abdomen Tympanitic. Skin cold & clammy. death took place in the afternoon of the 16th.

~~Autopsy~~ 12 hours after death. the glands of Payer in the last 18 inches of the Ilium were found in different stages of ulceration this condition obtained in the upper part of the Cecum. the Kidneys were found engorged & softened. no examination of the brain & thorax was made,

Case IV (17) (Typhoid Fever)

Laurentz Ryan Act. 35.

Entered the Lombard St Infirmary—

Jan 2nd 1849. A man of strong constitution + Phlegmatic temperment. was employed as a laboures on the rail road. States that He usually enjoyed sound health. He felt somewhat indisposed two or three weeks prior to the present attack. He had considerable cough with soreness of the chest and loss of appetite.

Jan 5th. Pulse 80. regular + weak. slight head ache, tongue furred in the centre red at the tip + around the borders. lips dry + dark, eyes natural. skin moist a few rose spots perceptable upon the abdomen, slight diarrhea. lying on his back, complains of considerable weakness. slight Tympanitis

Diagnosis. we have sufficient evidence in this case.

from the present symptoms, slow + insidious march of disease. to form a correct diagnosis in regard to its proper type, notwithstanding we have a number of characteristic phenomena absent: and a very mild form of disease. there is very little nervous depression. no marked disturbance of the vascular system. no ~~head ache~~ no pain upon pressure in the right Iliac region, had no Epistaxis. our principal diagnostic symptoms in this case. are the continued Type of fever. the development of rose spots. and the presence of diarhea.

Jan 7th. slight improvement in his general appearance rose spots fully developed no pain upon pressure in the right Iliac region appetite improving —

Pulse natural. tongue not so foul.
ordered an alkaline solution.

Jan 9th Symptoms about the same pulse 88 + feble. slight cough + some giddiness on sitting up. no gurgling sound nor pain in the right Iliac region rose spots disappearing.

Jan 12th Pulse natural. tongue moist + nearly clean. cough continues no cerebral disturbance. appetite very good. skin moist + cool. no rose spots perceptible.

Jan 15th Convalescent

Case V. 20 (Fracture of the Skull)

Baltimore County July 23. 1849.

I was requested by the attending physician to see Negro man George who had received a severe injury of the head. a man of large frame muscular & well formed. set about 35. on examining the seat of injury there was evidence of ~~a fracture~~ a fracture about two inches in extent occupying the left Parietal bone about an inch below the anterior superior angle. the injury appeared to be inflicted by a round & or oval instrument.

Diagnosis.

The characteristic symptoms of compression are well marked in this case. with the evidence of a simple fracture with depression. He is labouring under slow stertorous breathing. pupils dilated &

insensible to light. Pulse 55 full & strong. Loss of sense & volition with Hemiplegia of the right side. in concussion Stertorous breathing & Paralysis are rare. unless the injury be grave, the pulse is generally feeble. the pupils may be contracted, or dilated. Loss of sense & volition may occur in a severe case of concussion. but only partial in slight cases. we are therefore enabled in the present case to form a correct diagnosis in regard to the nature of the injury.

July 21st. an Operation was decided upon by the attending Physician who commenced by shaving the scalp — then making a longitudinal incision about three inches in length. over the parietal bone. I think this incision

preferable to a V or crucial one. the flaps are less apt to be displaced. there is more uniformity of apposition which favours the healing process. and less danger of secondary complications. the Operation was continued the Trephine applied to the Parietal bone and a portion removed. the elevator was introduced but owing to the wedged condition of bone, it could not be raised. the Trephine was then applied to the depressed portion, the elevator introduced and the bone raised. a considerable discharge of dark blood issued from the wound, which gave decided relief three communited portions of bone were removed from the inner table of the Skull, and all extraneous particles, the wound was closed by adhesive strips and a

bandage applied.
He was ordered Calomel to be followed by a saline Cathartic.
July 25th Pulse 55 quick & hard. complains of pain in the head. skin slightly moist. no effusion about the wound. articulates with difficulty. He was bled about ℥xii and ordered Cal gr ii Antim. Tart. gr 1-4. every four hours.
July 26th Pulse soft & slow. skin slightly moist. articulates with difficulty & very slow. considerable stupor present. has no pain in the head.
July 28th Pulse 58. & full. complains of considerabl pain in the head. eyes very much injected has partially recovered the use of his right side. the same Powders continued every four hours.

July 29th appears much better— this morning. Pulse soft + more natural. Skin moist + cool. Articulates with more ease. sense + volition nearly restored. the wound presents a healing condition.

Our principal indication, and great object, subsequent to the operation is to prevent if possible undue inflammation, by regulating our treatment, according to the nature of the symptoms,

I did not see this Patient again but have since been informed, that he recovered. He was under the treatment of Dr Galloway, a young Graduate of the Maryland University.

In closing my remarks Gentleman on the above cases. I feel truly sensible of their deficiency in correctly pointing out the Symptomatology, and Diagnosis, of Disease, but I hope time and a close application to the Study, may enable one to surmount many difficulties which appear now, as huge barriers in the road to Medical Science, we cannot in my humble opinion too assiduously cultivate a talent for close observation, & sound judgment to enable us in our Medical investigations, to separate truth from error; and deduce sound facts from the varied Hypotheses of the day. these principals have been enforced upon our notice by some of the most distinguished Medical men of the past and present age, and tested by the experience of the wise, the good, and the great.

A Report

Of four Cases

Together with a brief Survey

of the

Causes and Pathology

of

Typhoid Fever

Submitted to the Examination

of the

Provost, Regents, and Faculty

of Physick.

of the

University of Maryland

for the

Degree of Doctor of Medicine

by

William H. Johnson

of Frederick County

Maryland

Febuary 29. 3 3 3

To

William Power M. D.

and

Charles Frick M. D.

the former

Professor of Theory and Practice of Medicine

in the

University of Maryland

the latter in the

Maryland Medical Institute

these

Reports and brief remarks on the Causes

and Pathology of Typhoid Fever are most res

= pectfully dedicated as a mark of the respect

and friendship of the

Author.

"This body must be your study, and your continual care — your active willing earnest care, nothing must make you shrink from it; In its weakness & infirmities, in the dishon=ours of its corruptions. You must value it still, still stay by it — to mark its hunger & thirst; its sleeping & waking, its heat & its cold, to hear its complaints, to register its groans."

"Should humanity enliven it. Then this interest, this excitement, this intellectual pleasure, is ex=alted into a principle & interested with a moral motive, & passes into the heart. What if it be carried still further? What if religion should animate it? Why then happy indeed is the man whose mind, whose moral nature, & whose spiritual being are all harmoniously engaged in his own happiness, a dispensation of mercy to his fellow creatures, and a worship to his God." Latham.

As it is required of all those applying for the degree of Doctor of Medicine to lay befor the Faculty of this University a Medi=cal Essay, I have after taking a glance at the very many ills the human frame is liable to, decided that a report of Sever=al Cases of Typhoid Fever would be as orig=inal, if not as interesting as any dissertation I could submit to your Honourable Considera=tion. In addition to these reports, I have added a brief survey of its Causes and Anatomical Lesions, such as I have been able to glean from the writings of Nathan Smith. Louis, Chomel, and others. Indeed it would be a difficult task for the Candidate to find a single disease in our well filled Nosology that has escaped the eye of his predecessors. Must he then turn his attention to some mere hypothesis or theory, that perhaps might Explode under the very flashings of his pen and thus make himself the subject of ridicule

Or must he as the fabled Jackdaw display
himself in what belongs to another, and
thus attempt to draw forth the admira-
-tion of those around him. It is not my wish
to do either. The reports, I present to you as
they were taken down at the bedside. I
doubt not but that you will find many
imperfections in them, if so, I would beg
you to be liberal to your Youthful friend,
"Where garbled, guess him, — where maim'd amend"

Typhoid Fever.

Art 20. and a Sailor. came into the Lombard Street Infirmary on the 12th of June. giving the following account of himself. Had been compelled to discontinue work for some days. on account of general indisposition, headache, lassitude ringing in the ears. Epistaxis, a feeling of soreness in his limbs, and loss of appetite, accompanied with diarhea. Saw him on the 13th. He is lying on his back, his face flushed, with a dusky hue, his expression exceedingly dull and heavy, his eyes injected, his tongue thickly coated with a brown fur, the tip and Edges red. His lips, and teeth thickly covered with sordes. his pulse quick, weak & irregular numbering 120. his whole surface hot and dry. a few rose spots can be seen scattered over the abdomen, capillary circulation tardy, slight

tympanitis, pressure over the Epigastrium & Rt Illeum produces pain, no gurgling, but a sub crepitant rale in the Bronchial tubes. Ordered an Alkaline Solution, with an Expec=torant, and his bowels to be gently moved with Hydrarg: Cum Creta.

June 14th. Still lies on his back as on Yes=terday, learn from his attendants that he was delirious through the night, his stupor has increased. When roused an=swers very vaguely such questions as are put to him, and immediately falls off again into a state of stupor, his eyes are glassy, his features sharpened, pro=trudes his tongue with very great diffi=culty, and unconciously allows it to re=main protruded, it has assumed a more dark and dry appearance, subsul=tus of the mouth and Alae Nasi, his pulse weaker and more frequent, numbers 140. rose spots much more perceptible,

Asphologia has supervened, the diar-
=rhea has become worse, with gurgling
in the right Illeo Cecal region. Pain
is still present, Pulse the same.
June 15. This morning he died. At a post-
Mortem Examination made twelve hours
after death the agglomerated glands of
Peyer in the last eighteen inches of the
Illeum were found in different stages of
ulceration, this condition of things also ob-
=tained in the upper part of the Caecum.
The Kidneys were much engorged & soft-
=ened. No Examination of the brain or the
=rays was made.

Guidimond Aet. 23. by birth a ger-
=man, with light hair, blue eyes, &
the other Evidences of a Lymphatic
temperament entered the Wards of
the Infirmary September the 10th.
He has resided in this Country for the

last- eighteen months, his occupation
is that of a Cabinet Maker, The dura
=tion of the disease is about eight days.
He first- suffered from headache, lassitude.
And diarhea, his disease was ushered in
by a chill. To day he presents the follow
=ing symptoms, decubitus dorsae, face
very much flushed, with a dusky tinge,
Expression dull and languid, with a dispo
=sition to sleep, tongue dry & slightly coated
with a brownish coat. Pulse full and soft-
numbering 90. Over the Hypogastrium two
Spots most- perfectly shown, tenderness
on pressure in the Right- Illeo Cecal region.
diarhea, and evidences of slight- Bronchi
=tis, Ordered an Alkaline solution of the
Bi Carbonate of Soda, a mush poultice combi
=ned with Mustard to be applied to the ab
=domen, to relieve the tenderness, and mopping
and sponging of the surface.
19th Rested badly, Cerebral symptoms

however better, also capillary circulation.
pulse dichrotic, frequency 100. tongue more
moist; slight gurgling present in the
Right Iliac Coal Region, in other respects
the same as on yesterday. Ordered the same
treatment to be continued.

20th Rested somewhat better than on the
preceding night, Cerebral symptoms
still better, pulse again dichrotic, frequen
=cy 100. Rose spots less apparent; Cap
=illary circulation has improved, tongue
also improved, more moist and natu
=ral, but the gurgling in the Rt Iliac Coal region more distinct.
Diarrhea entirely relieved. The Alkaline
Solution alone was ordered.

21st. Rested well, and is much refreshed
by the night's sleep. his Expression much
better, his mind is clear, converses sensibly,
his pulse more regular & has more volume,
frequency 90. Sudamina perceptible on
the neck, his bowels have been moved once.

the other symptoms likewise improved.
The same treatment to be continued.
22nd. Has again enjoyed a night of tranquill and refreshing sleep. his pulse still improving in tone. frequency 96. more marked gurgling in the Right Illeo Cecal region. no change perceptible in other respects, Continued the same treatment.
23. Injoyed an uninterrupted nights rest. his pulse firm frequency 80. less gurgling and entire absence of pain in the Right Illeo Cecal re=gion. in every other respect much better. & from this day forth continued to improve rapidly, left the Infirmary on the 28.

Noah. Organ Aet. 21. years, flushed face together with all the other evidences of a San=guineous temperament entered the Infirma=ry on the 7th of October. When brought in was delirious, but from his attendants we were able to glean the following account of him. by birth a native of New Hampshire,

has been a resident of this city for the
past two years, his occupation is that of
a Coal Miner, he has generally enjoyed
Excellent health, but is somewhat inclin
=ed to dissipation. The exciting cause of
his disease is attributed to a drunken
frolick, the duration of his sickness is
about eight days, it was ushered in
with a chill, followed by fever, giddi
=ness, Epistaxis, headache, and diarhea.
On to day (the 9th) his appearance is as
follows. Decubitus dorsal. his face
very much flushed, with a dusky hue
save the left cheek which is of a deep
red colour, and very hot: at the first
glance one would almost recognise him
as suffering from Pneumonia, so marked
is this symptom. his expression is vague,
and is careless to what is going on around
him, answers questions wildly, almost impos
=sible to get him to answer the most simple ques

=tion correctly. protrudes his tongue slowly. which is coverd with a brown coat=, the edges are red, and the tip pointed, his lips & teeth coverd thickly with sordes. his pulse dichrotic, numbering 92. pain and gurgling on pressure in the right Illeo Cecal region. Capillary circulation tardy, great nervous prostration, & slight diarhea. Ordered an Alka=line solution, and 3 cupes to be applied to the back of the neck

10 P.M. Was delirious through the night, but says he is better this morning, he is evidently=ly more rational, although his face is more flushed, his tongue more thickly coated and browner, complains more of headache and ring=ing in the ears. his expression dull and list=less. the sclerotics are somewhat effused, his pulse still dichrotic, frequency 96. great heat and dryness of the skin, Capillary circulation the same as on yesterday. meteorism, & gurgling in the Rt. Illeo Cecal region. the diarhea is relieved.

The Alkaline Solution to be continued. 11th Has suffered again from delirium and vigilance through the night: but this morning is free from headache, his skin is more moist & natural, the Scleroticas still effused, Epis=taxis has recurred, but not profusely. his tongue is more moist and cleaner. his pulse remains weak and dichrotic frequency 92. Meteorism the same, the bow=els have been opened twice, each evacu=ation was thin, Ordered the same treat=ment to be continued.

12th Last night rested well, this morning his face is less flushed, save the left cheek which still retains the high colour of which I have before spoken, the surface of the body is again dry and heated, his pulse however is fuller. frequency 92. Scleroticas still effused, his tongue as on yesterday, but lips cleaner, meteorism still continues, bowels have not been moved, the same treatment

Continued, 13th. His expression much more anima=ted and intelligent, converses sensibly, and noti=ces those around him, his face is less flushed, his surface not so hot and more moist, cap: cir: has improved, his pulse is more regular, & has more volume, numbers 90. his tongue much cleaner, as also are the teeth and lips, meteorism is however still pres=ent, no gurgling or pain in the Illeo Cecal region, bowels have been opened once, Continued the Alkaline Solution. 14th Rested last night indif=erently, suffered from vigilance and some slight delirium, his pulse more irregular, fre=quency 96. tongue not so moist, his surface the same as on yesterday, capillary circulation still improving, rose spots apparent for the first time, also subsultus tendinum, this latter symptom however ~~was~~ very slight, less metiorism, Ordered with each dose of the Alkaline solution one eighth of a grain of Tartar Emetic. 15th Rested somewhat better than on the preceding night, this morning is in fine

spirits, and quite talkative the surface of the body more natural. his pulse accelera-ted. frequency 102. little or no change in the other symptoms. The same treatment to be continued. 16th Enjoyed a good nights rest. his tongue cleaner and again moist. the pulse improved in volume, and regularity. frequen-cy 92. meteorism continues, gurgling is again present in the Right Illeo Cecal region. Other Symptoms has improved. Ordered the same treatment to be continued. 17th Last night rested badly, suffered from vigilance Complains of constant sweating, his tongue is assuming a more natural appearance, Epis-taxis has occurred, his surface is warm and moist; his pulse no: 88. meteorism is almost-absent; Slight gurgling on pressure still pres-ent in Right Illeo Cecal region, bowels have been opened once, Ordered the Alkaline So-lution alone. 18th Rested well last night. his whole appearance better, his tongue quite nat-

=ural. his pulse firmer and much more
regular, frequency 84. in other respects slightly
improved. The Alkaline Solution to be Contin
=ued. 19th Has again enjoyed a refreshing
nights rest, his pulse has nearly assumed
its natural tone, frequency 86. Delight-ma
=nia still present. The rose spots
are disappearing, his tongue slightly coated
and moist, his bowels have been moved
once, The same treatment to be still con
=tinued. 20th Still improving. his pulse
numbers 92. Alkaline Solution again contin
=ued 21st. Pulse natural, frequency 80. Con
=tinued from this day to convalesce rapidly,
but remained in the Infirmary until the 25th

John. a negro boy. Aet-14. was brought into
the Infirmary on Thursday the 12th October.
had resided on Light Street, being some
=what delirious we were unable to learn the
exact commencement of his disease, he stated

that he had ben taken sick on Tuesday.
this was hardly possible. as his disease appear
=ed at least of five or six days duration.
19th Lays on his belly & it is with much diffi
=culty he can move himself from severe pain
in his loins. his expression is heavy and stu
=pid, mixed with distress. he has combined stupor
and delirium. is indifferent to what is going on
around him, is with some difficulty aroused & ans
=wers all question pevishly. has great thirst. his
pulse is exceedingly small and feeble, numbering
124. his teeth and lips covered with sordes.
protrudes his tongue with some difficulty, which
is tremulous and covered with a thick brownish
coat. the edges are red & the tongue pointed, ring
=ing and buzzing sounds in his ears. On both
side posteriorly crepitation and the submucous
rouchus, with cough, meteorism to some extent,
gurgling and pain produced by pressure
on the Illeo Cecal regions. Ordered an Alka
=line Solution & demulcent of Turpentine &

Gum Accacia. 14th Delirium through the night was very marked, was up and walking about the room, this morning he is in a state of almost perfect Stupor, and very much prostrated. protrudes his tongue with more difficulty, its coat has become thick-er and darker, his eyes effused, his pulse more rapid & feeble, frequency 142. the whole surface hot and dry. Metiorism is somewhat less. Other symptoms have undergone no change since yesterday, Ordered a blister of Canthanides to the nape of the neck also the Alkaline Solution and Turpentine to be continued. 15th Still lies on his belly, the pain in his loins is not so great, was again delirious through the night, Stupor has slightly increased, and still protrudes his tongue with great difficulty, which is dry and brown. Metiorism is still present, Carphologia has supervened, Subsultus of the Mouth and Ala Nasi: pulse still very feeble, frequency

+16th Bowels moved once. Pulse still feeble no 1

140. great nervous and muscular prostration, bowels have not been moved. Ordered with the Alkaline Solution &c. Quinine & Carb-onate of Ammonia 3 times per day.

16th " Had delirium again through the night, was up & crawling about on his bed, in oth-er respects the same as on yesterday. Ordered a blister to the inside of one of the thighs & the same treatment continued

17th " This morning he is lying on his left side, with his knees drawn up, ap-parently enjoying natural sleep. When spoken to answers in a muttering manner & is with difficulty sufficiently aroused to answer questions, immediately after being left alone his mind wanders off again. great desire for water. makes frequent attempts to protrude his tongue before he succeeds, it is covered with a whitish brown coat, and is more moist, upon the Epigastrium a few Sudamina is to be seen, his surface is cool,

his pulse still feeble, & dichrotic fre-
=quency 124. less pain produced on pres
=sure over the Cerebral regions, no stools
since yesterday. Ordered Quinine, Turpen
=tine, Carbonate of Ammonia, Wine and
Water, together with a simple Enema.
10th Last night was somewhat delirious
also suffered from vigilance, This morn
=ing is lying on his left side, with his
legs drawn up, his intelligence is better,
the Sensibility of the whole surface very much
exalted. Parotitis has made its appearance
general subsultus, his pulse is very soft
and still irregular, frequency 140, his tongue
now moist & less coated, Meteorism
is less, bowels have been operated on three
times, Ordered a poultice sprinkled over
with, Pulv: Cyan: Chlo: Ammonia, to
be applied on the Parotid, and a cam
=phor Julip in addition to the Alkaline Solu
=tion &c.

19th. Last night his sleep was again inter=rupted by vigilance. To day the symptoms are pretty much as on yesterday. No change has occured worthy of notice. less pain how=ever is present in the Parotid. his pulse numbers 140. The Camphor Julip having been neglected it was again ordered.

20th. Pulse more regular, frequency 116. entire absence of either tympanites or me=teorism, parotid and other symptoms as on yesterday and the preceding day. The same treatment to be continued.

21st. Rested much better than on the pre=ceding night. his mind appears clear and much more active. the Parotid is less tense, his pulse has improved in volume, frequency 116. and in other respects improv=ed. Ordered the Turpentine to be discontin=ued, the other treatment the same.

23rd. Is much refreshed by his last-night's rest. Cerebral symptoms ~~and tympanites~~ still

improved, intelligence good. Pulse very weak. Frequency 120. Tongue more moist and much cleaner. Meteorism has returned. bowels moved once only since the 21st. His whole surface more moist and natural. the Parotid was lanced on yesterday, discharging a quantity of pus. Ordered a continuation of the same treatment. 25. Enjoyed a tranquil and sound nights rest, but complains a great deal of his neck, pains continue in the chest. pulse somewhat more irregular. Frequency 124. The same treatment to be continued. 26th Gums much refreshed by the last nights rest. his pulse firmer and much more regular. Frequency 122. Tongue looks almost natural, skin surface somewhat dry & acrid, meteorism nearly absent. Other respects as on yesterday. The Camphor Julip was ordered to be dispensed

with, and the Alkaline Solution, &c
to be continued, with the addition of
a simple Enema.

27th. Pulse 112, and assuming regularity &
volume, bowels have been opened once.
in other respects improving. Treatment
the same.

28th Pulse 110. and tidy improving in
tone, also improving in other respects.
From this day he gradually convalesced
but was detained in the Infirmary owing
to work in consequence of his neck.

I regret exceedingly I had not an opportunity
of seeing these cases more than once a
day, therefore gentlemen if I have left out
any symptoms that was present, I hope
you will take this into Consideration

I shall now proceed to make a few brief remarks upon the causes and pathology of this interesting disease. It would be a task of no little labour were we to go back farther than the year 1796 to note its distinct or literary history, we would find it so intermingled with Continued fever that our researches might be unsuccessful, the first mention I have been able to find on medical record of its distinction from Continued fever is by Dr Nathan Smith, he speaks of its fearful ravanages on the Connecticut river in the year 1796. Yet it seems from the vague accounts given him by his predecessors it had been noticed many years previously and known by the name of Nervous fever. Prost was the first to give any satisfactory account of its anatomical lesions, this he did as early as the year 1804, prior to the discovery of that characteristic lesion found in the small intestines, this lesion was not discovered until the year 1830. the discovery

of which was made by a Medical Student. This promising young physician, alas, was cut off by the relentless hand of death whilst in the very morn of life, but although his body hath long since mouldered into dust, yet the name of Jackson lives, as an ex-ample to the young of his profession. Since this decease, Chomel, Louis, and others have by their unceasing application laid bare to our view its many pathological lesions. In speaking of those who have figured so highly in the study of this disease, I should not omit to give Dr. Nathan Smith the praise that is so justly due him. In casting an eye over his interesting biography & treatise on Typhoid fever I have been somewhat astonished at his great originality of perception, and sound judgement: but not being desirous of his Eulogising the dead I shall proceed first with the Causes of Typhoid Fever.

Unlike many diseases in our list, Typhoid fever takes an impartial course, it singles out no particular section of Country, but visits

the elevated and illubrious situation as well
as the damp and miasmatic valley,
when it occurs in an Elevated situation
its prognosis is much more grave, It
makes some slight distinction in the age of individuals,
the old are seldom its victims, whereas those under
thirty are frequently, Man too is much
more liable to it than females, this can
easily be accounted for, the duties of woman confine
her within doors, whereas man is called forth
at all times and under all circumstances,
Season exerts but little influence to prevent
it, the blasts of freezing winter impedes
it no more than does the warm rays
of a Summer Sun, Dr Jackson thinks
it most common in Autumn, It may ei
=ther prevail sporadically, or as an Epidemic
with fearfull ravages, Whether it is conta-
=gious or not is a disputed point, Some think
it cannot be propagated by contagion, Others
for instance Dr Nathan Smith contends that

it can, he relates several cases which in my opinion is sufficient proof that it can be, M Gendron is of the same opinion, he too mentions several instances, Crowded and badly ventilated apartments, bad diet, Excessive fatigue, either physical or mental, Exposure to heat or cold, filth, animal decay, all have a tendency to produce it, A recency of residence too has much influence, ~~in propagating it~~, this was shown by a series of cases which fell under the notice Louis, and many others have witnessed it also, indeed we ~~often~~ sometimes see it displayed in persons coming from the Country to the City to reside, Should an Epidemic prevail we will find those persons its victims whereas the old citizens will escape, ~~No~~ Occupation or profession exerts any influence either in its production or prevention, Race does appear to have some influence, from statis

=tics, the blacks are less frequently its vic
=tims than the white population, yet they
are by no means exempt. Dr. Lewis of Mo
=bile Ala. met with an epidemic in the Win
=ters of 1835. 6. & 7. in which hundreds of
blacks died, A very fortunate circumstance
connected with this disease, is that those who
have once suffered from it, are almost ex
=empt from a second attack. This Charac
=ter of Typhoid fever if fully established
does much to prove in my opinion it is, or
can be propagated by contagion. All who
have noticed this agree that those persons
who have suffered from it seldom suffer a
second attack.

In the study of pathology the student should
not let a single lesions that is found in necropsy
escape his observation, whether characteristic or
not, I shall therefore in this autopsy mention
many changes which are by no means pe cu
=liar to Typhoid fever.

The External appearance gives us little or no information, Emaciation in this as in all other diseases is influenced by the pe=riod it has existed, towards the termina=tion of the disease mechanical congestion fre=quently takes place, but this is the case in many other diseases, should the patient have died before the close of the second week of the disease, the rose spots which had existed prior to death may be still apparent: or if later Sudamina may be prescribed. From the constant stupor and delirium which attends this disease we would be in=clined to expect some marked altera=tion in the Brain, but such is not the case strange as it seems, seldom can we detect any change whatever, and even when present vary exceedingly, in forty six cases noticed by Louis, he found in twenty eight an effusion under the Arachnoid membrane, and in less than one half cases

=larity of the Pia Mater, a rosy tinge of the Cortical portion, & injection of the Medullary portion. This effusion was invariably influenced by the severity or duration of the Case. And in a few cases Evidences of Con=gestion or inflamation of the membrane was noticed, but was not in a single instance influenced by the degree of Stupor or delirium, as in many cases a marked alteration was discovered where not the slightest symptom existed of Cerebral disturbance before death. The lungs likewise display no marked alteration, Mechanical Engorgement frequently takes place during the last hours of life, some Pathologists have found Conges=tion, & the different signs of inflamation Louis speaks of a very singular condition he noticed, And to which he applied the name of Carnification, this occupied most generally a circumscribed Space in the posterior part of one or both lungs of a deep bluish red colour

having a tough leathery feel, giving away with some difficulty under the pressure of the finger. A change seldom takes place in the pleura. Effusions however have been found. whether it was found when Secondary Pneumonia had existed I am unable to say. but I should suppose it was. Although the presence of tubercles, if there were any present, might be sufficient to account for this. The consis=tency is often diminished, softened and flaccid, its tissues can easily be broken up. The walls of the ventricles are also frequent=ly diminished in thickness, the external appearance most frequently paler than natu=ral. Occasionally the interior is also, or it may be of a violet red. The Aorta too seems changed in consistency and colour this was thought by Louis dependent upon, or caused by the peculiar condition of the blood or of the tissues.

Almost universally a change takes place

in the blood. the fibrin and some of the saline constituents become diminished. Dr. Clanny thought the blood in Typhoid fever contained less Carbonic acid, and there=fore recommended Seltzar water in the treatment of it. Dr. Clanny I believe stands alone in this opinion, at least no one has been candid enough yet to agree with him. a number of patients in the hospital of La Charité was treated exclusively of gaseous drinks, yet no more recovered, than by cooling & acidulated drinks. Should the fibrin be increased, or even remain at its normal standard &, we may readily infer the presence of inflama=tion, This fact was most clearly exemplified by the experiments of Andral, since then by Dr. Charles Frick, Jr. of this City. Blood drawn dur=ing life rarely presents a buffy coat, in fact it is so seldom, that many pathogis-

have led to affirm that it never does, whether it does or not; Experience will not allow me yet to say, but I am inclined to think from the accounts of many it does, if taken in the early period of the disease, especially if Meningitis be an accompaniment; I cannot but think inflamation frequently present in the early stages of the disease. Andral & Gavaret have never found the fibrin increased above its normal stand=ard, when found in the cavities of the heart it is most frequently a dark coag=ula, or entirely fluid, occasionally interming=led with air. The Liver is often found soft=ened, but varies little in shape, colour, or Consistence. The spleen very frequently engorged and softened, The Kidneys by some Pathologists are said to be but seldom found Engorged or softened, in my first report I have mentioned an instance, The salivary glands display no peculiar feature, In

very protracted cases the Mesentery, Mesocolon, and other Symphatic glands undergo a slight change in Colour, and Consistence, The Mucous membrane of the Epiglottis and Bronchia is frequently changed in colour, becoming of a livid red or violet, and softened. Entire destruction of the Epiglottis may occur from ulceration, this is rare however, & seldom occurs. Except in protracted & grave cases, The Larynx or Trachea seldom present any marked change. The Mucous Membrane of the smaller ramifications of the Bronchial tubes are often found changed in both colour & consistence, this change can readily be attributed to inflamation, as we know that, Secondary Pneumonia & Bronchitis is by no means a rare accompaniment; The Pharynx and Oesophagous are seldom found altered, the Mucous membrane of the Stomach is often changed ~~in~~ in Colour & sometimes thinned

and softened. Louis records a few cases in which it was even ulcerated, and he asserts that the extent of this le = sion was not influenced in the slightest degree by any symptoms of Gastric derangement that might have existed during life. Let us now turn our attention to a much more interesting, and which we may term unhesitatingly characteristic le = sion, I mean the change which takes place in Brunners glands, and Peyers patches, but before speaking of these lesions, one word relative the mucous membrane of the small intestines, in the duodenum it is less frequent = ly changed than in the remaining portion of the small intestines, sometimes, and in fact frequently it is found quite natural or it may undergo a change similiar to that of the Stomach, Brunners glands and Peyers patches as I have already remarked invariably undergo some alteration, The former

become thickened, inflamed, and if the case be a protracted one often ulcerate. ~~Forming~~ ~~ulcers~~ the edges of these instead of being elevated, are gradually levelled off. The latter undergo a similiar change. Chomel says they first become hard or soft, prominent, & of a rosy white colour, afterwards eschars & ulcerations make their appearance, and state later in the disease their surfaces become clean, their edges depressed, & they cicatrize, presenting a slate colour, or they perforate the Intestinal tube, & allow an escape of a small portion of its contents, giving rise to fearful peritonitis, the ulceration in the patches of Peyer is influenced by the duration of the disease and their distance from the Ileo Cecal valve, as we ascend the Intestinal tube from its connection with the Ileum we find the patches becoming less & less changed, Chomel thinks the exciting cause of this perforation owing to the

presence of a large quantity of gass as fre-
=quently found in the intestines, for my
own part were I disposed to give my opinion,
it would be in opposition to Chomels, I
am inclined to look upon this gass as
the effect, and not the cause, but when present
it may perhaps under some slight change by
coming in contact with some of the fluids, for instance
the bile, and thus increase the ulceration but even this is very doubtful.
In Children perforation is far less fre-
=quent than in adults, Louis mentions
another change he found about the
patches of Peyer, in one third of his cases
the sub mucous substances of these
follicles instead of only being hypertro
=phied, they were found to have under
gone a yellowish transformation, the large
intestines often after death contain a yellow
=ish or greenish fluid, & sometimes are found
extended to such an enormous degree with gass
as to push up the liver, Stomach &

occasionally even the diaphragm. The mucous membrane undergoes an alteration similiar to that of the Stomach and Small Intestines, in many cases Ulcerations are found, these differ in size & number, and are more superficial than those found in the Small Intestines, they are most generally confined to the Cæcum, a few cases are on record where the Submucous substance of the little isolated follicles had undergone a Yellow-ish transformation similiar to that described in speaking of the Small Intestines. As we would instantly infer, a relation exists between this intestinal lesion & the abdominal symptoms, for instance the presence of gass would account for the gurgling that is heard on pressure, the great Meteor-ism &c. The last organs to be mentioned are the Urinary & genital, no peculiarity whatever exists in these lesions.

An

Inaugural Dissertation

On

The influence of Nature upon man.

Submitted to the examination

Of the Provost, Regents,

And Faculty

Of Physic

Of the University of

Maryland.

For the degree of Doctor of Medicine

By

Berwick B. Smith

Baltimore

Md

To a mind observant of the objects of external nature, their endless number and variety, and the manner in which they are constantly and necessarily offered to our senses, the relation that exists between them and the character and constitution of man cannot but be evident.

The reasoning Locke affirmed indeed that the simple ideas received from external impressions were the foundation of all our knowledge. That the mind when once stored with them had the power to repeat, unite, compare, and complicate them to an infinite variety; but that the most exalted understanding could not

by any power invent or frame one simple idea not derived from such source.

We are provided with powers and capacities of recognizing and acting upon these impressions received through the inlets of knowledge; with instinct, or the power of directly responding to them, and with intellect for the modifying and expanding them, and producing those results of thought and action, those principles and impulses which characterize man. Now these results vary just as the fabulum varies and is differently offered and received. Every form of organic life is so constantly affected by the nature and quality of the elements that surround it, that it seems to form a prominent feature of a certain region. As Baron Cuvier could from a single bone

judge of the whole animal, whether with a strong nervous form it couched for prey, or trembling left its meal at the approach of danger: so to a skilful botanist a single plant is an index of the land on which it grew, of the rock which held it up on its summit to the sun and the strong winds, or the bushes which hemmed it in jealous of a straggling ray; of the water that twisted the snake grass round its root, or the sand that gave a double sun.

Each seed has its favourite soil and season, and the elements which called it forth are required for its support; when denied these it declines and withers. The reindeer of Lapland scrapes the snow for the licken, his winter food, which covers the ground where the frost of the surface scarce yields to the solar ray of

midsummer; while it is only in the light and warmth of tropical climes that the tall sugar cane and gigantic bamboos can flourish.

In ascending the peak of Teneriffe Humboldt remarked as many as five distinct zones, which were respectively marked by the products which characterize different climates.

Even when a species possesses the power of adapting itself to widely different conditions, its appearance is wonderfully changed. The Cercis Virginiana, is in the southern states a noble tree of one hundred feet; at its northern limit it is reduced to a shrub of six feet. With animals the same law obtains; of the countless specimens which throng the tropics, how few would survive if transported to the climate of Siberia, or compelled to traverse the ice with the Polar

bear, the altered influences being then active causes of destruction, and to those surviving, causes of degeneration in size, character, and spirit.

The essential nature of different species, their features and manifestations of being, are strikingly in accordance with their external conditions.

Shakespeare says that silence is the most perfect herald of joy, as exemplified on the vivid transports of the oyster, as he lies basking in the sunny smiles of some blest inmate of the mudbank. In the recesses of the Mammoth cave of Kentucky there is found a fish in which no trace of eyes can be discovered, and the monotony of whose mute and cheerless life is only equaled by the dismal silence that reigns around. Snakes, crawling from their dark holes

and Stygian pools are universally
regarded with terror and disgust,
their appearance inspires a foe
on every side, and obtains for them
a character loathsome and malig-
nant. With these contrast the
life of birds, inhabiting the medium
of sunshine, which stimulates and
enliviens them. Their very motion as
they sail through the air has been
a favourite wish in every age. All
their expressions are those of hap-
piness and pleasure. What song
of joy can equal that of the lark,
as she soars heavenward with a
burst of music responsive to the
glorious sunbeams which awaken
it. So with the many coloured
insects, agile, choleric, and destruc-
tive; circling in the noonday sun
or round the nose of Tray, who won-
ders why they are so constantly intent

on activity and mischief.

Man, from the position he holds in the animal creation, seems constituted as the proper and peculiar occupant of the earth. He is capable of sustaining many changes, and of accommodating himself to many different conditions. Accordingly we find that his range is greater than that of any other animal. No fruit that grows but has offered itself to the lips of man: no wind that blows but has met him in its wanderings: he has almost marked out the confines of life.

But he must conform to the same laws which the Creator has given the earth: he too must feel the effects of seasons and of times, and of the elements in general.

The same sunshine which paints the gorgeous flowers, contributes to his life and health. The same air which he breathes, blows as well for them. The earth supports man by the food it offers, whether he fight the boar for his acorn meal, or by culture persuades the ground; it clothes him, and protects him from storms and cold by the materials it affords. Its productions arouse his senses, and impress his mind. Now a naturalist, wherever he might meet a man, would find no difficulty in reducing him to the genus homo; but the influence of the surrounding elements, and the changes accomplished by them according, as they vary at different times and in different positions are as plainly manifest in him as in all other forms of

organic life. We see the effects of climate in impressing the character and condition of man. Extreme cold arrests the development of mind and body by contracting, and numbing the nervous and muscular systems.
The Greenlander is as diminutive in size as he is obtuse in intellect: his mental and physical energies are alike depressed. The sight of the frozen land around also affects him; his country is a dreary one; no pleasant productions of nature enliven his mind; the sun shines sullenly through a gloomy mist; bleak winds howl round his hut and fill his mind with a superstitious dread; he dotes on blubber, and his pleasant visions are of stranded whales and a distended stomach. Charles Lamb said that no man of pure mind

ever ate cabbage, what would he say to whale blubber?

Extreme heat on the other hand relaxes and enfeebles man; he is rendered incapable of any continued exertion, for that exertion ensures fatigue and lassitude and he avoids it, living in idleness; his ambition extends no further than the satisfaction of his immediate wants. His mind follows the same course, being unexercised it is undeveloped, and destitute of those pleasures which result from its proper application. Extremes of climate seem to repress the nobler sentiments and emotions, which depend on the health and cultivation of the mind; and by repressing them to allow full sway to the animal propensities.

Too sudden transitions also from

one temperature to another are unfavourable. A region blessed with the four regular seasons must be better adapted to the healthy life of man, than one in which summer and winter encroach hastily upon each other. So with the transitions from day to night: where they are gradual, then the system passing from the dawn of a balmy morning to the heat of noon, will be refreshed and invigorated by the coolness of the evening twilight. A favourite figure with poets, has been the comparing ones life to the course of a single day. The morning is the threshold of expectation; each thought, each pleasure, and each hope, exaggerated by reflection from a thousand gilded objects. Then, midday manhood, the season of labour and industry, when each due considered action has its

object well defined. Then the declining orb brings lengthened and encroaching shades, and the old man sits in sunshine, even within the shadow of death.

The temperate zones, for these reasons will always be the seat of intellect and science; here the mind is energetic; here men enjoy those pleasures which result from industry and occupation; here civilization makes all good common, and each man dependant on the activity of the mass.

Such is the influence of climate. Now from the external worlds; from the features of the land, modified as it is by soil, productions, and scenery, we receive many impressions.

A mans whole disposition is marked more or less by character of the land in which his childhood has been spent: when he leaves the home of

his youth, new scenery and new objects are contrasted with those which before affected him and he constantly recalls the image with which his early habits and desires were connected. There are many emotions which are always excited by the presence of certain objects; and we can easily imagine how the constant presentation of such objects would strongly imbue one's disposition.

Highlands and mountains form a free and independent race. Here the horizon only bounds the extended view: the pure winds from heaven bring health and vigour, and give them that spirit of freedom which erst inspired William Tell. Wandering from place to place like the game they hunt, they lead a careless and cheerful

life, and being bred in the lap of nature, and impressed by the majestic scenery around, their characters are strong and high minded. As the mountain streams pursue each their several courses to the plain beneath, so we see the inhabitants of these regions not collected together to form large communities, but living dispersedly and relying for justice on that strength of body which their climate and pursuits bestow upon them, or they form numerous small clans, battling against each other with the same spirit that denies a foreign yoke.

Now the streams from the mountain unite to flow through the plain beneath a slow and stately river. The animals herd together and the trees stand side by side to

form vast forests. So man by the nature of the land and the pursuits he necessarily engages in, is induced to a social and settled life.

Civilization increases by reflection and the extravagant expressions of character become more subdued. Order and regularity and an established form of government result, and the thousand arts and sciences which enrich the life of man. Large empires have at all times had their seat in plain or valleys.

Boats form a bold and hardy race; living among cliffs and tumbling waters and surrounded by the most striking features of the earth, they imbibe a spirit of enterprise. They buffet the rough waves and winds, and the many dangers they escape, teach them

the power of moon. Here we read of men let down from precipices and of hair turned white by extreme peril.

The Highlands of Scotland are in many parts a picturesque but melancholy country, long tracts of mountainous heath often obscured by mist, narrow valleys bounded by precipices resounding with the fall of torrents, full of echoes and caverns. Such objects could not fail to diffuse a gloom over the fancy, and imbue the minds of the natives with mournful images and superstitions, such as prevailed in former times before their more frequent intercourse with strangers; such as filled the breast of Ossian with the remembrance of bygone ages and fantastic visions, when the moon lit up the grotesque landscape

and a "thousand ghosts shrieked
on the hollow wind,"
The sky of Italy and that of
England differ no less than the
dispositions of their inhabitants.
In the land where the olive
springs uncalled from the ground,
where the nightingale sings the
birth of the rose and laments its
short lived beauty, where the moon
each night mournfully sends her
rays dispersed in quest of her lost
Endymion, there the deepest and
most feeling characteristics are
impressed upon the deeds, language
and poetry of the natives; and Tasso's
silver verse rung not more sweetly
to the listening ear, than glowed
the images which watered him.

* * * * * * * * * * * * * * * * * * * *

"Desunt Caetera,"

An Inaugural Dissertation On Apoplexy.

Submitted to the Examination,
of the
Provost, Regents, and Faculty of Physic,
of the
University of Maryland,
for the Degree of
Doctor of Medicine,
by
William B. Harrell,
of
North Carolina.

Session 48 & 9.

Apoplexy.

The peculiar characteristics of this disease are, immediate and sudden deprivation of the power of sensation and consciousness, without the entire loss or suspension of respiration and circulation; and caused by something pressing upon the substance of the brain, having its origin not without, but within the cavity of the cranium. The cause must exist interiorly, as otherwise, there are many other affections, which being marked by similar symptoms, (if I may use the term,) would of necessity stand on the same footing with apoplexy without in fact, pathologically speaking, having any relation to it whatever.

In defining the term apoplexy, pressure upon the brain seems to be the true meaning, and the pressure must be sudden, and not the effect of any tardy accumulation of fluid. It must also of necessity have its origin within the cavity of the cranium, or we might regard compression of the brain, from external

violence applied to the surface of the bone, apoplexy. It is not known whether there really exists hemorrhage or not in this disease, but some writers have been, and are, of the opinion that it does. The symptoms, in all cases of genuine apoplexy, are brought about either by simple congestion of the brain, hemorrhage within the cranium, or sudden effusion of serum, but we are not in possession of any certain diagnostic means of ascertaining whether the last two are present or not; and in our treatment of the disease we are not guided so much by our notions of the pathological condition of the cerebrum & cerebellum, as by certain symptoms which are external to the brain, and on a true knowledge of which must depend all hope of successfully combating it.

Symptoms.— An attack of apoplexy, in many instances, not unfrequently follows certain premonitory symptoms; and those very symptoms declare to us that something is wrong within

the cranium; that the brain is not in a perfectly sound state. These are, a sense of heaviness or fullness in the head, vertigo, headache, nausea and vomiting, disposition to sleep, dimness of vision, a roaring noise in the ears, sense of hearing blunted for a time, imperfect recollection, dread of approaching calamity or evil, face flushed, epistaxis, want of sensibility in some part of the body, staggering, defective speech &c. together with other indications of partial paralysis of the powers of life. There are other symptoms sometimes reckoned among those of apoplexy, but as they are more remote, it is thought unnecessary to mention them here. Of those already enumerated, perhaps, sometimes only a single one will be observed in a particular case, or there may be two or three, and these may be present more or less, for months, or a few hours previous to the attack. Oft times the blow is given without a moment's warning and when the individual is, to all appearances, in sound health. When an attack is made, the person generally

falls, (if standing or sitting), consciousness is completely lost, also the power of motion and sensibility. This is evident if a limb is raised; for it will immediately drop as if entirely deprived of vitality. All the senses are suspended, and the patient cannot be roused by any means. The countenance is wholly destitute of expression, and the face often distended with blood. The carotids are sometimes seen to throb. The pulse is full, slow, strong and not unfrequently intermittent. The respiration is also slow and often stertorous. The pupil of the eye is, in many cases, much dilated, and sometimes the reverse, and not affected by the light. The bowels constipated. We stated that the power of motion is lost, and although this is the fact, there is sometimes spasmodic rigidity of the muscles on one side.

This condition of things remains or continues for a few minutes or several days, when, if it does not terminate in death, finally yields of its own accord, or to the remedial measures

employed. The first expression which animates the countenance of the patient on the return of consciousness, is that of wonder & surprise; as if he would enquire of the bystanders, "what are you here for"? Returning health may now speedily drive away all remaining symptoms of the disease; but this is a result by no means common. On the contrary, it is frequently seen, when the patient begins to feel returning power over the muscles, that he is generally completely paralysed in one half of him. In fact hemiplegia may often be observed at the very first attack. Sometimes, however, only a single limb, or one side of the face, &c. will be paralytic. In most cases the power of motion and sensation are destroyed for a time. These paralytic symptoms may continue for a long period in life, or they may depart in a few hours after consciousness returns. When this does take place, the person is very apt to have pain in the head, and, perhaps, as it often the case, irregular & unconnected

ideas or disorder of the intellect. If these should continue, with a rapid state of the pulse, accompanied with hot skin, we might presume that inflammation was established. Very often, for a long time after an apoplectic attack, the mind of the patient is left in a comparatively shattered condition; memory fails; there is a difficulty in calling words, or using the right words in giving expression to thought; and those are often used for others of an entirely different import. If the attack is to have an unfavourable termination, it will not generally do so sooner than three or four hours, and sometimes it may be as many days. However, death occurs in some almost immediately, but this I believe is seldom. In fatal cases the coma is usually complete previous to death, the circulation diminishes both in force and quantity but increases in frequency. The feet and hands are cold, with cold perspiration over the surface of the body; and breathing is now carried on very feebly till finally it ceases altogether. This is the

most common form of the disease, but of course it is subject to variations. It often comes on in a gradual manner, and increases by degrees, either ending in deep coma, or without entire insensibility. The symptoms of apoplexy occasionally follow after hemiplegia or partial paralysis of the body; and the patient is unable to utter a syllable, or to move the arm or leg of one side before being wholly unconscious of his actual condition: and I believe there are instances in which persons have had these symptoms of paralysis, and yet at the same time perfectly "compos mentis" throughout the whole attack. Such instances are not of great frequency truly, but they are not improbable. These, however, are not cases of apoplexy, and an inquiry into them will not, at present, be instituted. Perhaps they would more properly come under the term palsy. In an ordinary attack of apoplexy there is a flushed face, and a full, strong pulse; but the reverse is sometimes the case. There may

be pallor of the countenance, and the circulation may be weak and scarcely perceptible.

In fact there is often every conceivable variety between the two. There is very great difference also in the sound in breathing. During the act of inspiration it is loud, and resembles snoring; in expiration it is a "peculiar noisy, puffing out of the cheeks", which is supposed to be owing, in the former, to a certain inactive state of the velum pendulum, and in the latter to a similar condition of the muscles of the face. They are not always present in every case. The face, though sometimes flushed, and at others livid or blueish or pale, yet in every instance it lacks sensible expression, and looks as if the patient was in profound sleep; and if the eyes be opened with the fingers, the pupil is perfectly insensible to light and either dilated or contracted, when the apoplexy is profound. Convulsions sometimes occur, and when they do, may be either general, or confined to one

side of the body, and most frequently the side opposite to that paralysed. When there is hemorrhage within the cranium, paralysis is almost always present, and in many cases the whole body is in the same state, but ordinarily there is only hemiplegia. Sometimes the arm, or the leg only is affected, or the paralysis may be in the face, the tongue, eyelids &c. The nerves of sensation & motion usually are affected, or one set only.

Coma is the result of pressure on the brain within the cranium, and in this disease may be very deep and profound, or slight vertigo; but, I believe, in a case of true apoplexy, coma must be profound, at least, for a time. When a person has had one attack of this disease he is rendered liable to a second, from which (if it is mild) recovery is probable, but a third attack of the severer form is rarely survived. Ordinary congestion of the brain, independent of effusion, is seldom fatal, though oft re-

peated attacks may leave the patient in a condition of mind scarcely less to be desired than death.

What are the anatomical lesions, if any, in this disease? The fact is, death may take place without producing any lesion whatever in the substance of the brain, at least, any that can be discovered. Such cases, we admit, are very rare. It is reasonable to suppose, on examination, that something must have been overlooked; some condition of the congestion which escaped observation, sufficient to paralyse some one of the nervous centres necessary to existence. The blood-vessels of the brain, in some cases, are in a very great state of congestion, and this is the only evidence we have, of the nature of the disease of which the patient died. The arachnoid membrane by being suddenly infiltrated with serum may produce fatal apoplexy. Instances are on record where such has been the case, and the serum thus effused is sometimes wholly

colourless, sometimes of a reddish or yellow colour. Neither does it follow that there must necessarily be inflammation or congestion; for in certain dropsies this result is wanting. Hemorrhage is almost always a certain lesion in apoplexy. Perhaps, in three out of five cases it is so, and will most usually be found to occur in the parenchyma of the brain. But that the effusion of blood may take place within the cranium, upon or between the membranes, and cause death, is equally true. When the hemorrhage is in the substance of the organ, there is generally to be seen, blood in all the sinuses and depressions of the dura mater and pia mater both; and in the brain itself blood is found in little excavations in the tissue. The quantity effused may be much or little; never exceeding, perhaps, more than eight or ten ounces. The parieties of the cavities produced by the hemorrhage are usually of a reddish, or deep red colour, and very soft. The effused blood

has been examined, and found to have formed itself, a few days after effusion, into a blackish, soft coagulum. Gradually it loses colour, becomes more solid, and finally, is entirely absorbed. It is stated that, the blood which is effused in the sinuses is more slowly absorbed that that found in the cerebral substance.

Causes. Some persons are predisposed to apoplexy, and this predisposition is inherited from parents. In fact, it is believed that, those individuals whose parents were subject to apoplectic attacks, are, in general very likely to be similarly blest[13], (on which account they need not be envied by others who are less fortunate[14]). Advanced age is also a predisposing cause, and probably the most frequent of any. Another predisposing cause, thought to be, is, when persons have large heads, short, thick necks, florid face, plethoric habit, and sanguine temperament. Probably this is more an idea

than any thing else; however, a large number of this description do die of apoplexy; and on the other hand, it is not uncommon for persons of an opposite character & physical conformation to have fatal attacks of this disease. Some have supposed that certain conditions of the heart may predispose to apoplexy, hypertrophy for instance; but it is not very evident. In regard to the query, as to what is the condition of the brain which renders it peculiarly liable to apoplectic effusion, there are various speculations and theories, but as I wish to state facts only, it were better to let theories alone. Men are more subject to this disease than women. The exciting causes of apoplexy are almost innumerable. Sometimes a person may be very suddenly seized while standing, or walking, or quietly sitting, or while asleep; but in such cases, the attack is thought to be owing to some previously existing diseased condition of the brain, or its

blood-vessels. Any thing capable of increasing the force of the blood through its vessels, and inducing it to the brain, or of hindering its return and bringing about congestion, will generally act as an immediate cause of apoplexy. This may take place, in all probability, without any peculiar predisposition to the disease; and the causes which bring it on, may induce hemorrhage in one, whose brain has not previously been unsound. I believe apoplexy rarely attacks children or young persons; and this would lead to the conviction that the disease can hardly be brought on without some other influence, (which may act as an exciting cause); for we know young persons are more exposed to such causes than the old, and yet they seldom suffer with apoplexy. Among the many causes which may produce it, may be mentioned, excessive straining of any kind, violent muscular exertions,

over

vomiting long continued, hanging with the head down so that the blood may gravitate to the brain, wearing the cravat too tightly drawn around the neck, the exposure of the head to the rays of a hot sun, or a hot fire; stimulation applied intimately to the brain, such as, strong mental emotions, the use of alcoholic drinks; the circulation may be so accelerated through the vessels as to bring on an apoplectic attack; affections of the heart and lungs &c &c; all these may act as immediate & exciting causes of apoplexy.

The Nature of the disease. Apoplexy implies pressure on the brain suddenly; and this pressure may be by direct or indirect congestion of the vessels of that organ, by the effusion of serum, or by hemorrhage. The blood may be driven with unnatural force and in unnatural quantity into the head, producing, what is called, active congestion; and then it may be hindered in

its healthy and usual flow therefrom, causing, what is likewise called, passive congestion. In the former, it occurs in the arterial vessels, in the latter, in the veins and sinuses. The effusion of serum may be caused by tumors on the veins, or general dropsy in the body &c. Hemorrhage, by the bursting of a vessel. It no longer remains a matter of doubt, as to whether the brain is capable of being compressed or not. It is said, in hypertrophy of that organ, if the cranium is opened after death it (the brain) will expand, proving that it must have been in a previously compressed state. It must be evident that the symptoms which indicate this disease are produced by pressure on the brain. There must be a certain amount of arterial blood furnished that organ in order to carry on its healthy functions; and if this requisite quantity is at all diminished or retarded in flow, the action

of the brain must of necessity be impaired or cease entirely. Thought can no longer be generated nor impressions received; and faculty of transmitting motion is prevented. Loss of sensation, consciousness, and voluntary action, which are the chief signs of apoplexy, necessarily follow.

The manner in which the quantum of blood is diminished in this disease is this. In active congestion, there is more blood driven into the arterial vessels than is really their due, and the space thus filled up, is done at the expense of all others, and that in the veins is made less or contracted; and of course the returning blood is carried slower than in health. The consequence is, a stop is put to the free capillary circulation, and the fluid in them undergoing a change, is not sufficient to render the necessary stimulus. On the other hand, in passive congestion, the veins are unusually distended, and the supply

is furnished at the expense of the arteries which are compressed; and a smaller quantity of blood circulates in the capillaries, than is requisite to sustain the healthy functions of the brain. In cases of sanguineous or serous effusions, the blood is then taken from both arteries & veins.

Diagnosis. It is a difficult matter to diagnose correctly the various forms of apoplexy, arising from difference in the actual cause. It may, however, be sometimes done with tolerable certainty by strict attention to the symptoms; as for instance; a strong, unusually full pulse, with a florid, flushed face will indicate active congestion; and when the pulse is small or weak or even natural, with a purple or bluish cast over the face, we know it is passive congestion. But in serous apoplexy the diagnosis is rarely ever sure; and hemorrhagic apoplexy almost the same; unless paralysis of

one side of the body has been bestowed by the apoplectic attack. In the latter case, the hemorrhage is on the opposing side of the brain. It is not, by any means, always easy to diagnose "between apoplexy and coma occurring from other causes". However, when the senses have become suddenly suspended, & there is a strong, full, slow pulse, with face flushed, and breathing loud & slowly performed, we may decide on the case as one of apoplexy, especially if hemiplegia occurs at the same time. But these symptoms are not always present, and when absent, the case must be made out by diligently enquiring into the history of the attack, so to speak; and upon the want of those certain signs which would declare the case to be one of Coma from different causes. When an individual takes an overdose of some powerful narcotic for the purpose of suicide or otherwise, the cerebral symptoms are analagous to those of apoplexy; and to diagnose between the two, we

must endeavour to learn something of the circumstances of each; and the questions to be asked of the friends of the patient, if we suspected the poisoning, are so natural that, it is deemed needless to give any here.

If apoplexy has been brought on by the excessive use of alcoholic stimulants, the case is rendered somewhat complicated; for at a certain period of it, we could hardly make a correct decision where palsy did not exist.

When poisoning has occurred from the inhalation of certain gases or vapours, we know it from the circumstances attending the case. The pulse too is usually weak, the body cool, and the face of a reddish, purple hue. In acute cerebritis the coma which results can scarcely be distinguished from that of apoplexy. Under these circumstances the diagnosis is much more difficult than when it exists from other causes.

The <u>termination</u> of this disease is sometimes quickly fatal, though not always so. Congestive

cases, whether active or passive, will generally yield to judicious means when employed in time; and the danger to be apprehended in congestion is that hemorrhage may follow it. When this does not take place, or when the hemorrhage is survived, the memory & intelligence of the sufferer is apt to be left in an impaired state. The most dangerous & fatal forms are those of the hemorrhagic and serous character: and the fatality will be indicated by signs of convulsions, palsy, profound coma long continued, total loss of power to move the eye or to perform deglutition, foaming at the mouth, vomiting, a frequent pulse, coldness of the hands and feet, cold sweats &c, &c, without any amendment. The prognosis in old persons is far more grave than in the young; and the second attack is rarely survived.

Treatment. The first thing to be done in the treatment of apoplexy is, to put a stop to the hemorrhage, or reduce congestion. The next,

means must be employed to meet the inflammation, and to endeavour, if possible, to induce the absorption of the serum or blood effused. The patient must be placed in the horizontal or reclining posture, with the head and shoulders elevated. The neck should be freely exposed, and every thing like a bandage or cravat removed. The air of the apartment should not be close or warm, but on the contrary, should be kept cool & free. Blood may be taken from the arm immediately, if the pulse indicate it, and in proportion to the constitution of the patient and power of the circulation. It is not proper, however, to bleed in every case, and the necessity or impropriety of such a measure must be left to the judgment of the judicious physician. It is not the inflammatory symptoms which are to be combatted, but the hemorrhage; and the purpose of taking blood is chiefly to check the great flow of it to the head. If, when called to an individual suffering with this disease,

the heart's action is already weak, and the Pulse at the wrist small & slight, it would not be prudent to take blood, for reasons which must be obvious. When the pulse is such as to allow of bleeding, the quantity to be drawn may be from 16 to 26 ounces at first, and it may be necessary to repeat this several times according as the circulation does, or does not give evidence of having diminished in force. In most cases a single bleeding will suffice. If the pulse in the beginning should be weak, blood may be drawn from the back of the neck or the temples by cups or leeches, and this may also be done after the general bleeding, if the circulation is not sufficiently reduced. Perhaps there would be no impropriety, (suggests a somewhat celebrated modern author on the Practice of Medicine), in applying leeches to the inner surface of the nose, as it is known that much relief is often afforded by epistaxis when there is a tendency to Congestion of the brain. Local bleeding seems especially called for when the attack has succeeded

the suppression of any flow of blood from the rectum or uterus, and in that case we may apply leeches to the anus or vulva.

The blood when drawn here has somewhat the buffy appearance, which seems to indicate inflammation.

Emetics are rarely useful in cases of real apoplexy, and almost always prove injurious; because instead of inviting the flow of blood from the head, they generally produce distention of the vessels of the temples, and cerebral fullness. Purgatives are a very useful remedy. They act as depletives and revulsives; and the more energetic they are the better at first. If the patient can swallow, the best cathartic is, infusion of Senna, with Sulph: magnesia. If the patient cannot swallow, a little croton oil may be dropped on the back of the tongue and allowed to remain until it excites the act of swallowing; or an enema of some prompt cathartic may be given; strong infusions of Senna will

answer the purpose. The application of cold water, or bags filled with pounded ice to the head, is an excellent means of treatment in most cases when the surface is hot, the face red and flushed, and the pulse full and strong; but if the opposite signs are present, this remedy should not be employed. Hot stimulating pediluvia & sinapisms to the extremities as revulsives, are very important as a means of treatment. If after the circulation has been reduced, and symptoms of coma still continue at the end of several days, the head should be shaved and covered with a blister. This will act as a strong revulsive, and prevent a tendency to inflammation of the meninges. Finally, should these measures fail to cut short the disease, the mercurial plan may be tried. It will do no injury to the patient, and may prove beneficial by preventing inflammation and promoting the absorption of effused blood. The object should not

be to salivate largely, nor to give a very sore mouth. A grain or two of calomel may be given every two or three hours, with gentle mercurial friction on the insides of the arms and thighs. In cases of debility with depressed circulation, pale and cold surface, blood may be taken locally from the back of the neck or the temples if the debility itself is not alarming; and if the pulse increase in fulness we may go a little further, but stop immediately if it should become more depressed, and confine our treatment to mild purgatives, revulsives to the extremities and surface of the scalp, and slight mercurial impression. Sometimes it is necessary to support the strength of the patient, owing to the great debility under which he labours. In that event, an enema of oil of turpentine may be administered per rectum, and blisters and rubefacients applied to the skin.

Should these fail to increase the pulse sufficiently, Carb: ammonia, Capsicum, or oil of

turpentine may be given by the mouth.
All stimulating remedies which have a tendency to act directly on the brain, must be carefully avoided as a general rule.
Attention should be paid to the bladder, and the urine drawn off by the catheter.
When consciousness returns, the patient must be guarded against all exciting emotions, whether mental or otherwise. The diet should be well regulated and of the simplest kind at first, such as farinaceous or demulcent drinks as soon as the patient can swallow.
Afterwards, as the case improves, a more generous diet may be allowed, provided the patient commits no excesses in eating.
The prophylactic treatment is all-important in apoplexy, as after one attack the patient is very liable to a second. His bowels should be regularly opened once a day, at least, and constipation removed by a dose of some saline cathartic.
Vertigo or headache, with strong, full pulse

at any time would demand the use of the lancet, or local depletion from the head, or an active cathartic, according to the symptoms. Every thing which might act as a cause of the disease should be avoided. The patients food should be light & unstimulating, and taken in moderation. His drink must be likewise. He should exercise moderately, and not do any thing to call forth violent muscular efforts on his part; should never strain at stools, nor walk fast, nor run, nor mount a pair of stairs quickly. He should avoid getting in a passion, and should not suffer the cares, and perplexities, and troubles of the world to harass him in the least.* In short, it should constantly be his whole object to pass along smoothly through life, and to "take things easy"; acting always with moderation, and with an eye to his general health, and striving by all means to square his life by that great rule, "do unto others as

*He'd be a most lucky man if he didn't.}

you moved that they should do unto you",
and then should he be so unfortunate as to
have another attack of apoplexy, and it
prove suddenly fatal, he will at least,
(we may reasonably hope) wake up from
it in a world where, (we are authorized
to believe,) "sickness and sorrow, pain and
death, are felt and feared no more".

Finis.

——— " ——— " ——— " ———

And now gentlemen, you have that before you
which a long-established custom of this school
renders obligatory on me, as a candidate for
graduation, to present for your perusal.
I do so, not only with pleasure, but with some
satisfaction to myself; hoping that, you will
but sparingly, if at all, criticise <u>it</u>, and be
very lenient to the writer when he comes
before your <u>august body</u> in the Green Room.

Very Respectfully &c &c &c,

The Writer.